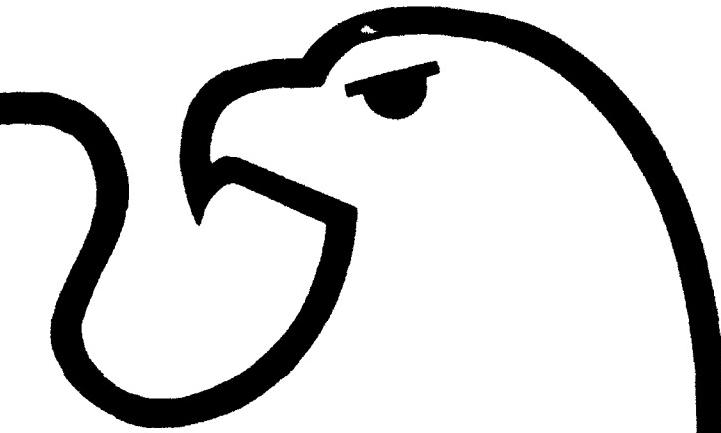


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# *Reserve Component Programs – FY 1992*

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Report of the Reserve Forces Policy Board  
January 1993



THE SECRETARY OF DEFENSE  
WASHINGTON, THE DISTRICT OF COLUMBIA

15 JAN 1993

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Annual Report of the Reserve Forces Policy Board for  
Fiscal Year 1992

The Department of Defense Reserve Forces Policy Board's  
Annual Report for Fiscal Year 1992 is hereby provided.

This comprehensive report reviews the progress that has been  
made by the Department in improving the readiness of the National  
Guard and Reserve. In the Board's judgement, there are areas  
where further improvements are required to make the Reserve  
components more effective members of the Total Force. The  
Board's recommendations are listed throughout the report.

The report represents the collective views of the members of  
the Board, and not the official policy positions of this  
Department or any other Department or agency of the United States  
government.

The Board, having just celebrated its 40th Anniversary,  
continues to make excellent contributions to our efforts to  
ensure that the National Guard and Reserve are adequately manned,  
equipped, trained, and ready as part of the Total Force. The  
Board's assistance to me and the Department has been significant  
and most appreciated.

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As Stated

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THE SECRETARY OF DEFENSE  
WASHINGTON, THE DISTRICT OF COLUMBIA

15 JAN 1993

MEMORANDUM FOR PRESIDENT OF THE SENATE

SUBJECT: Annual Report of the Reserve Forces Policy Board for  
Fiscal year 1992

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The Board, having just celebrated its 40th Anniversary, continues to make excellent contributions to our efforts to ensure that the National Guard and Reserve are adequately manned, equipped, trained, and ready as part of the Total Force. The Board's assistance to me and the Department has been significant and most appreciated.

A handwritten signature in black ink, appearing to read "Dick Cheney".

Attachment:  
As Stated



THE SECRETARY OF DEFENSE  
WASHINGTON, THE DISTRICT OF COLUMBIA

15 JAN 1993

MEMORANDUM FOR SPEAKER OF THE HOUSE OF REPRESENTATIVES

SUBJECT: Annual Report of the Reserve Forces Policy Board for  
Fiscal Year 1992

The Department of Defense Reserve Forces Policy Board's Annual Report for Fiscal Year 1992 is hereby provided.

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Attachment:  
As Stated

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This report represents the Reserve Forces Policy Board's independent review of Reserve component issues and provides a consensus evaluation of Reserve component programs. It includes the collective views of the Board members and does not necessarily reflect the official policy positions of the Department of Defense or any other department or agency of the United States Government.

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# Reserve Component Programs Fiscal Year 1992

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The Annual Report of the  
Reserve Forces Policy Board

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Office of the Secretary of Defense  
Washington, DC 20301-7300

January 1993





## Reserve Forces Policy Board Members and Staff



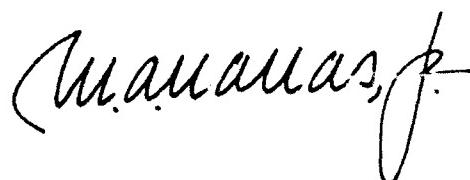
**Honorable  
John O. Marsh, Jr.**

Chairman, Reserve Forces Policy Board, Partner, Hazel & Thomas, P.C., Falls Church, Virginia and Washington, DC. Legislative Counsel to the Secretary of Defense, 1989-1990; Secretary of the Army 1981-1989. Previously, Counselor, with Cabinet rank, to President Gerald Ford; Assistant for National Security Affairs to the Vice-President; and Assistant Secretary of Defense for Legislative Affairs. Representative in Congress from Virginia, 1963-1971. Appointed Chairman, November 16, 1989.



**Major General  
William A. Navas, Jr.  
United States Army**

Military Executive, Reserve Forces Policy Board. Vice Chief of the National Guard Bureau 1990-1992. Deputy Director, Army National Guard, 1987-1990. Assigned to Board August 17, 1992.





**HONORABLE ROBERT S. SILBERMAN**

Assistant Secretary of the Army (Manpower and Reserve Affairs),  
Washington, DC. Assigned to Board September 1, 1992.

A handwritten signature in cursive ink that reads "Robert S. Silberman".



**LIEUTENANT GENERAL J.H. BINFORD PEAY, III**  
**UNITED STATES ARMY**

Deputy Chief of Staff for Operations and Plans, Headquarters,  
Department of the Army, Washington, DC. Assigned to Board  
September 3, 1991.

A handwritten signature in cursive ink that reads "J.H. Binford Peay, III".



**MAJOR GENERAL WARREN G. LAWSON**  
**ARMY NATIONAL GUARD OF THE UNITED STATES**

The Adjutant General for the State of Iowa, Johnston, Iowa.  
Assigned to Board August 1, 1990.

A handwritten signature in cursive ink that reads "Warren G. Lawson".



**MAJOR GENERAL CHARLES J. WING**  
**ARMY NATIONAL GUARD OF THE UNITED STATES**

The Adjutant General for the State of Wyoming, Cheyenne,  
Wyoming. Assigned to Board December 1, 1990.

A handwritten signature in cursive ink that reads "Charles J. Wing".



**MAJOR GENERAL PAUL G. REHKAMP  
UNITED STATES ARMY RESERVE**

Commander, 88th Army Reserve Command, Ft. Snelling, St. Paul, Minnesota. Funeral Director, Rehkamp Funeral Homes, Marshall, Minnesota. Assigned to Board February 17, 1992.

A handwritten signature in black ink that reads "Paul G. Rehkamp".



**MAJOR GENERAL KENNETH A. BOULDIN  
UNITED STATES ARMY RESERVE**

Commander, 125th Army Reserve Command, Nashville, Tennessee. President, KAB Associates, Inc., Memphis, TN. Assigned to Board April 11, 1991.

A handwritten signature in black ink that reads "Kenneth A. Bouldin".



**HONORABLE BARBARA SPYRIDON POPE**

Assistant Secretary of the Navy (Manpower and Reserve Affairs), Washington, DC. Assigned to Board November 21, 1989.

A handwritten signature in black ink that reads "Barbara Spyridon Pope".



**REAR ADMIRAL EDWARD B. BAKER, JR.  
UNITED STATES NAVY**

Assistant Deputy Chief of Naval Operations, Plans, Policy, and Operations, Washington, DC. Assigned to Board April 1, 1991.

A handwritten signature in black ink that reads "E.B. Baker, Jr".



**REAR ADMIRAL DAVID A. JANES  
UNITED STATES NAVAL RESERVE**

Deputy Commander, Naval Surface Forces, US Pacific Fleet,  
Naval Amphibious Base, Coronado, California. Chairman of the  
Board, California Manufacturing Enterprises, City of Industry,  
California. Assigned to Board August 1, 1990.

A handwritten signature in black ink that reads "David A. Janes".



**REAR ADMIRAL JIMMIE W. SEELEY  
UNITED STATES NAVAL RESERVE**

Director for Plans (N5), Commander-in-Chief, U.S. Atlantic Fleet,  
Norfolk, Virginia. Captain, Miami Air International, Inc., Miami,  
Florida. Assigned to Board May 22, 1992.

A handwritten signature in black ink that reads "Jimmie W. Seeley".



**MAJOR GENERAL JOHN T. COYNE  
UNITED STATES MARINE CORPS RESERVE**

Commanding General, 4th Marine Division (Rein), FMF, New  
Orleans, Louisiana. Partner, Jordan Coyne Savits & Lopata,  
Washington, D.C. Assigned to Board October 1, 1992.

A handwritten signature in black ink that reads "John T. Coyne".



**BRIGADIER GENERAL LARRY S. TAYLOR  
UNITED STATES MARINE CORPS RESERVE**

Commanding General, 2d Marine Expeditionary Brigade,  
FMFLANT, Camp Lejeune, North Carolina. Captain, Northwest  
Airlines. Assigned to Board October 1, 1992.

A handwritten signature in black ink that reads "Larry S. Taylor".



**HONORABLE J. GARY COOPER**

Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations, and Environment), Washington, DC. Assigned to Board December 5, 1989.

A handwritten signature in black ink.



**BRIGADIER GENERAL CHARLES T. ROBERTSON, JR.  
UNITED STATES AIR FORCE**

Director of Personnel Plans, Deputy Chief of Staff, Personnel, Department of the Air Force, Washington, DC. Assigned to Board October 1, 1991.

A handwritten signature in black ink.



**MAJOR GENERAL DONALD L. OWENS  
AIR NATIONAL GUARD OF THE UNITED STATES**

The Adjutant General of the State of Arizona, Phoenix, Arizona. Assigned to Board April 1, 1990.

A handwritten signature in black ink.



**MAJOR GENERAL DRENNAN A. CLARK  
AIR NATIONAL GUARD OF THE UNITED STATES**

The Adjutant General for the State of Nevada, Carson City, Nevada. Assigned to Board June 1, 1991.

A handwritten signature in black ink.



**MAJOR GENERAL JERRY E. WHITE  
UNITED STATES AIR FORCE RESERVE**

Mobilization Assistant to the Commander, Aeronautical Systems Center, Wright-Patterson Air Force Base, Ohio. Assigned to Board September 1, 1992.

*Jerry E. White*



**MAJOR GENERAL JAMES E. SHERRARD, III  
UNITED STATES AIR FORCE RESERVE**

Commander, Fourth Air Force, McClellan Air Force Base, California. Assigned to Board June 1, 1991.

*James E. Sherrard III*



**REAR ADMIRAL JOHN W. LOCKWOOD  
UNITED STATES COAST GUARD**

Chief, Office of Readiness and Reserve, United States Coast Guard Headquarters, Washington, DC. Assigned to Board September 18, 1991.

*John W. Lockwood*



**REAR ADMIRAL G. ROBERT MERRILEES  
UNITED STATES COAST GUARD RESERVE**

Senior Reserve Officer, Atlantic Area, Governors Island, New York, New York. Program Analyst, Public Affairs, NASA, Kennedy Space Center, Florida. Assigned to Board January 5, 1991.

*G. Robert Merrilees*

# Staff

**Staff Director**



Colonel Richard P. Morton  
Army National Guard  
of the United States

**Staff Director**



Colonel Michael D. Brownell  
U.S. Army Reserve

**Staff Director**



Captain Mileva M. Hartman  
U.S. Naval Reserve

**Staff Director**



Colonel Joseph J. Klocek  
U.S. Marine Corps Reserve

**Staff Director**



Colonel James C. Ward  
U.S. Air Force Reserve

**Enlisted Advisor**



Master Sergeant Larry R. Adams  
U. S. Marine Corps Reserve

**Part-Time Consultant**



Major General William R. Berkman  
U.S. Army Reserve (Ret)

**Executive Secretary**

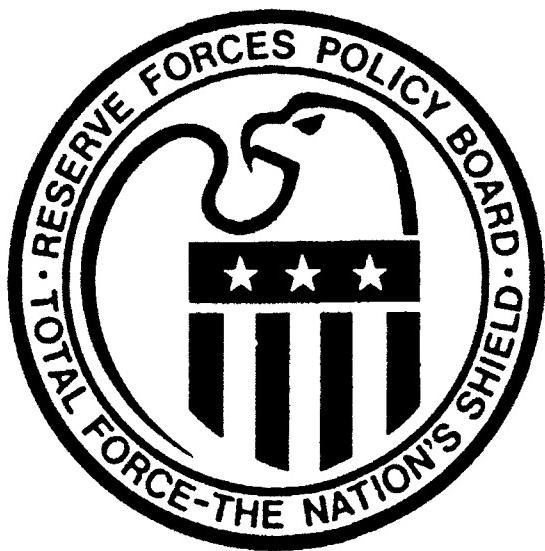


Mrs. Brenda Dent

**Staff Secretary**



Mrs. Deborah Joseph



The logo of the Reserve Forces Policy Board represents the total military force as the shield for the Nation. The United States is identified by its national symbol, the eagle. The blue field represents the Military Departments of the Army, Navy, and Air Force. The Marine Corps is a part of the Department of the Navy. The Coast Guard becomes a part of that Department in time of war. Integrated in that field are three stars depicting the Active Component, National Guard, and Reserve. The seven vertical stripes of the shield stand for the seven Reserve components - Army National Guard, Army Reserve, Marine Corps Reserve, Naval Reserve, Air National Guard, Air Force Reserve, and Coast Guard Reserve.

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The Annual Report of the Reserve Forces Policy Board is a reflection of the consensus of the 22-member Board. Although most recommendations and proposed policy changes have unanimous support, neither this report nor the signatures of the members purport that the signers, the Military Services, or the Department of Defense concur with every recommended action or position.



# Executive Summary

## General

The Reserve Forces Policy Board (Board), acting through the Assistant Secretary of Defense for Reserve Affairs, is, by statute, the "principal policy adviser to the Secretary of Defense on matters relating to the Reserve components" (10 U.S.C. 175(c)).

Representatives of each of the seven Reserve components (Army and Air National Guard, and the Army, Navy, Marine Corps, Air Force, and Coast Guard Reserve) serve as members of the Board, together with officers from the Active components of each Military Department and the Coast Guard and the Assistant Secretaries for Reserve Affairs from each Service, as prescribed by law (10 U.S.C. 175(a),(b)).

The Board is required by statute to prepare an annual report on Reserve programs of the Department of Defense (DoD) which the Secretary of Defense provides to the President and the Congress (10 U.S.C. 113(c)(3)). This report details contributions of the Reserve components to the Total Force and addresses matters pertaining to National Guard and Reserve readiness.

Today, the Reserve components are full partners with the Active components under the Total Force Policy. During the past two decades, Reserve component units have been integrated into virtually all theater operation plans. Large-scale combat operations cannot be successfully conducted without the Reserve components. Their increased involvement in contingency operations has demonstrated that their use in low intensity scenarios is no less essential. Since the Total Force Policy was implemented, the Reserve components have

achieved unprecedented levels of capability and readiness. This readiness has been the crucial factor in the ability of the Reserve components to successfully respond to military aggression in the Persian Gulf, as well as to domestic crises (such as riots in Los Angeles and disaster relief in Florida, Louisiana, and Hawaii) and many humanitarian efforts abroad.

## Force Structure

The mission of the Reserve components is to provide trained, well-equipped units and individuals for active duty in time of war, national emergency, or at such other times as the national security requires. They must be organized, manned, equipped, and trained to attain the necessary level of readiness.

Single, high visibility threats are no longer the paradigm. However, the capabilities needed for military success are generally predictable and must be built into our Armed Forces. Then, matching the capabilities to meet the threats, we can ensure military preparedness. Evolutionary changes in force structure continue to be made as we establish those capabilities. Our Reserve forces must be ready, capable, and accessible.

The Total Force Policy is serving our Nation well. The Reserve components have made substantial contributions to the strategy of deterrence. They have been involved not only in the mission support of major combat operations, but also in ongoing operational missions including drug interdiction, nation building, and disaster relief.

Greater dependence is being placed on the Reserve components. Most warfighting

contingency plans and peacetime operations include at least elements of the Reserve components. Defense budget cuts and revised threat assessments have significantly impacted the force structure of our Armed Forces.

The Board recommends that careful analysis be conducted before approving Reserve component force reductions, to ensure full consideration of Reserve component cost effectiveness and force capability. If budget constraints cause the Services to make force structure reductions in the Active forces, a thorough analysis should be conducted on the feasibility and cost effectiveness of transferring that capability to the Reserve components.

## Roles And Missions

Traditional threats are being replaced with new risks and regional dangers. National and international issues are focusing on interdependent concerns, placing enormous importance on the roles and missions we assign our military forces. Amidst these challenges are opportunities for more effective use of our military resources to better serve the Nation and to exercise our international leadership. Our military strategy cannot be based solely on threats, but must focus on the capabilities we need to guarantee success in both war and peace.

Traditional roles have long been the basis of determining force structure. In more recent years, a fundamentally new strategy has been the basis of force sizing. It includes missions of strategic defense, nuclear deterrence, forward presence, crisis response, early reinforcing, strategic reserves, and reconstitution.

Roles that received less emphasis during the Cold War are now becoming more important. These roles include an expanded civil affairs capability, drug interdiction or eradication, drug demand reduction, youth education and training programs, humanitarian efforts, environmental education, and nation building. Each Reserve component has capabilities which can be effectively used within these mission areas. Using the Reserve components for these types of missions can also be an effective national policy.

In this regard, an individual's civilian education and skills may be more valuable than

his/her military specialty. The Board recommends that each Reserve component identify the civilian skills of its members. In an era where every foreseeable operation is likely to require some aspect of civil affairs, it is critical that these civilian skills be catalogued and available.

Domestic missions are not new to the Reserve components. But these missions are ad hoc and are performed in addition to their wartime roles. These roles and missions should be formally assigned to the Reserve components.

The Board recommends that additional or enhanced formal missions be considered for the Reserve components, including continued participation in drug interdiction and demand reduction programs, and increased involvement in domestic relief missions.

## Personnel

Each of the Reserve components ended the year at or near 100 percent of their overall Selected Reserve programmed end strength. However, there are significant personnel shortages in various grades and specialties. It should also be noted that inadequate funding prevents the Coast Guard Reserve from filling to authorized peacetime levels.

Even during force reductions, a steady flow of recruits is needed to fill critical skills and to maintain an appropriate grade distribution. As an all-volunteer force, the Reserve components must have adequate recruiting and retention incentives to attract and retain quality personnel.

The Board is closely monitoring medical personnel strength to permit early identification of recruiting or retention problems resulting from Operations DESERT SHIELD/STORM. Medical planners are cautiously optimistic about nurse recruiting. However, physician strength is eroding due to a decline in new accessions.

Employers have, generally, remained overwhelmingly supportive of their employees' participation in the Reserve components. However, there are some indications of changing attitudes which may dictate caution over time.

Mission effectiveness of deployed personnel is influenced by the quality of family support programs. The better informed the family, the more realistic are their expectations, and the less likely they are to communicate feedback that would detract from their sponsor's effectiveness.

Adequate full-time support (FTS) is critical to Reserve component unit readiness. Full-time support requirements were funded at over 80 percent during fiscal year 1992 in all Reserve components except the Army National Guard and Army Reserve. Their FTS requirements were funded at 70 percent and 71 percent, respectively. Full-Time Support personnel enable units to meet their mobilization mission. They perform the day-to-day administration and operations necessary to enable drilling Reservists to devote their time to mission-related training.

The Board is concerned about moving too quickly on the issue of homosexuals in the military, especially since most of the dialogue to date has focused on implications for the Active components. There may be additional considerations which uniquely affect the Reserve components, and should be thoroughly analyzed before coming to a final decision.

There are major differences in programming and personnel strength accounting procedures between the Active and Reserve components. These differences distort data comparisons and program evaluation within the Department of Defense. These differences can also provide misleading data on the amount of trained manpower available for deployment. The Logistics Management Institute is evaluating the costs, benefits, and feasibility of changing Reserve component manpower programming and accounting procedures, as well as other approaches suggested by the Reserve components.

Record numbers of enlisted soldiers leaving active duty were accessed into the Reserve components during fiscal year 1992.

The House of Representatives passed the Reserve Officer Personnel Management Act (H.R. 4481) in the closing days of the 102d Congress. Because the Senate did not act on it, it will have to be reintroduced. The Board

recommends that the Reserve Officer Personnel Management Act be enacted by Congress.

The drawdown of the Reserve components has already caused some members of the Selected Reserve to lose their unit assignments. As a result, Reservists who had contemplated at least a 20-year career may be forced to give up their entitlements as well as their accumulated retirement benefits.

The Montgomery G.I. Bill (MGIB) is a highly-effective recruiting and retention incentive. It has been particularly effective in attracting high-quality recruits to the Reserve components. The Board recommends that the Montgomery GI Bill be expanded to permit attendance at graduate school. This can be an important retention incentive for junior-grade officers who have completed their service obligation. Retention of these officers will help reduce the shortage of junior-grade and mid-career officers in Selected Reserve units.

## **Training and Mobilization**

Training is an essential element in achieving and maintaining readiness. Quality training prepares Reserve component units and members to fight and win in combat as effective partners in the Total Force. New threat environments, new weapons systems, and development of new doctrine require training changes for both the Active and Reserve components.

All the Reserve components are exploring increasing use of training aids, devices, and simulators to enhance limited training time.

There is a growing concern among the Reserve components that declining training budgets will have a major impact on training programs. Budget cuts will reduce their ability to conduct the necessary analyses and evaluation of training programs and limit the use of technological advances such as computer-based. A decrease in staffing of training developers and instructors will also have a major impact on the quality and availability of training materials and courses.

Training delivery systems, including computer-assisted instruction, interactive courseware, simulators, and wargaming

systems, are essential to Reserve component training effectiveness and efficiency.

The Board recommends that advanced technology training devices be developed and sufficiently funded to meet the needs of the Reserve components.

The Board encourages the Department of Defense to continue the initiatives undertaken in recent years to provide the Reserve components with state-of-the-art training devices.

Some drug interdiction missions can enhance the effectiveness and capability of the Reserve components. Such missions can provide practical, meaningful opportunities for individual and small unit training. In addition to the training achieved, other agencies get additional, sorely-needed support, which they would not otherwise get. Training in this area could have been significantly expanded, had additional funding been available.

Dental readiness is increasingly important, especially for contingency operations. The Board believes that a government-sponsored dental insurance program is needed for members of the Selected Reserve and, possibly, for early-deploying members of the Individual Ready Reserve. An additional belief is that dental coverage should be provided to dependents of Reserve component members who are called to active duty for less than two years.

The Board notes that lessons learned from Operations DESERT SHIELD/STORM have resulted in numerous proposals to change the provisions of Title 10 U.S.C. 673. Recent legislation provided authority to the Secretary of Transportation to involuntarily call to duty Ready Reserve members and units, as necessary, for operational missions, for up to 30 days in any four-month period, and up to 60 days in a two-year period. The utility of this authority was demonstrated in recent immediate response to Hurricane Andrew when Coast Guard Reservists were called to augment the Coast Guard. The Board recommends that Section 673 be changed to provide similar recall authority for the Secretary of Defense to call members and units of the Ready Reserve to active duty for contingency missions.

Operations DESERT SHIELD/STORM highlighted the need for demobilization planning. Demobilization policies and procedures are under development.

The Board believes that, subject to operational requirements, members of the Reserve components should be demobilized as soon as possible following the cessation of hostilities. The Board also believes that demobilization should be planned to the same degree of detail as mobilization, from the notification of a planned release date to the completion of outprocessing.

## Equipment

Equipment modernization and modification programs continued in every major Reserve component weapon system. It is imperative that these programs continue. Although the Reserve components have received large amounts of modern equipment in recent years, significant shortages remain.

Obsolete and incompatible equipment is still maintained in the Reserve component inventory. Modification and conversion programs must be continued to minimize the adverse effects of that equipment. The ability of the Reserve components to effectively reinforce the Active components upon mobilization will be limited to the degree that the Reserve components' weapons systems and equipment is made compatible with that of the Active component. Active component commanders have shown a reluctance to deploy older generation systems. Even with the influx of equipment from force drawdowns, many Reserve component units will still be equipped with older generation systems.

The Reserve components need equipment which is similar to that used by the Active components. Due to declining defense budgets, the Reserve components have experienced increasing difficulty in obtaining equipment modifications. Such modifications to existing systems are necessary to increase survivability, mission capability, maintainability, and safety. All new requirements, whether Active or Reserve, must compete for the scarce resources available. These requirements are normally funded through offsets to existing programs. Because the budgets of the Reserve components are too

small to offset costs of major equipment modification, these initiatives require the support of the gaining commands to provide the funding.

The Board recommends that the Department of Defense continue an aggressive equipment conversion program within the Reserve components, as well as continuing support through the National Guard and Reserve Equipment Appropriations, to minimize obsolete and incompatible equipment.

Aircraft survivability equipment items, including improved threat detection, flare and chaff dispensers, radar warning receivers, electronic countermeasures, are still critically short. Without these upgrades, aircrews will be extremely vulnerable to the current and future generations of enemy weapons. These survivability enhancements provide the most effective, least expensive way to expand our combat and airlift forces. Dollars spent to cut losses in the high threat air battle improve the capability to regenerate the force for follow-on missions. Aircraft defensive systems are force multipliers.

The Services have taken active roles in developing plans for redistributing the equipment returned from Southwest Asia. The majority of the equipment transferred from Reserve component units during Operations DESERT SHIELD/STORM has already been returned. However, the Reserve components are still experiencing equipment shortages as a result of the transfers made to deploying units.

Training effectiveness is often determined by the equipment available. Personnel may be trained on modern systems when they first come into a Service or while they are in an Active component unit. However, after they join a National Guard or Reserve unit, they may find that they must train on outdated equipment. These personnel no longer have adequate opportunities to maintain proficiency in their designated skills. This jeopardizes warfighting capability.

## **Facilities**

Budget reductions have resulted in inadequate facilities, which, in turn, have adversely affected training and readiness.

Major construction is needed to replace or renovate many existing structures. Lack of storage space causes deterioration of equipment.

Adequate facilities are essential to the administration, training, and mobilization readiness of the Reserve components. A substantial number of Reserve component facilities are inadequate. Renovation or new construction becomes necessary when a facility's functional obsolescence, physical deterioration, or overcrowding adversely affects the mission. The morale and retention of quality personnel is adversely affected by inadequate facilities.

Some Reserve centers are located on large military installations and others serve as joint use facilities. The preponderance of armories and Reserve centers are located in civilian communities. Many of these facilities are also used by the other Services and a number are used specifically for the storage and maintenance of Reserve component equipment. Increased joint use of facilities by the Reserve components can reduce operating costs.

The Board recommends that the Department of Defense provide adequate funding for Reserve component military construction and that inadequate facilities be upgraded and adequate facilities be constructed, as necessary, to support the training, storage, and administrative requirements of the Reserve components.

Leasing is an interim solution to meet the needs of newly-formed Reserve component units and to alleviate short-term storage problems until the military construction programming cycle can provide permanent facilities. However, leasing costs are paid from diminishing operation and maintenance funds, which reduces funds needed for other essential programs.

Base closures are also a major concern due to loss of training sites, support services, and proximity to Active component support. Impacts on the Reserve component must be a criterion for base closure decisions. The Board continues to urge that consideration be given to the impact of base closures on the Reserve components before such a decision is made.

## **Environmental Issues**

The Reserve components are doing their best to be responsible custodians of the environment. The focus is on restoration, compliance, education, prevention, and conservation. However, federal, state, and local laws and regulations are rapidly changing. Keeping up with new regulations can be quite difficult, yet the commander must know the laws, know what action to take, and ensure that subordinates are properly trained and acting accordingly. Violations of federal, state or local environmental laws can result in both civil and criminal penalties; and Reserve component personnel are not immune.

The Board recommends that a program be implemented, within the Department of Defense, which will ensure that all Reserve component commanders and supervisors are made aware of their environmental responsibilities and legal liabilities; and ensures that all Reserve component leaders are properly trained and adequately resourced to

fulfill those responsibilities.

The specific environmental programs which most impact the Reserve components address underground storage tanks, cleanup, hazardous waste disposal, and water quality. As single-walled underground storage tanks are removed from service, the Reserve components must rely more and more on direct fuel purchases from the private sector; and costs are escalating. Hazardous waste remains a significant problem, though most sites have received initial inspections and are programmed for cleanup when funds are available. Water quality issues vary from site to site.

The Board recommends that the responsibility for managing environmental cleanup and restoration for past environmental contamination remain with the Active components when facilities are transferred from the Active component to the Reserve component. 



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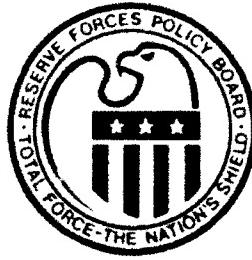
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# Preface

## Purpose of Report

To fulfill its charter, the Board is composed of members of the Reserve components, representatives from the Active components, and secretariat appointees who have responsibility for National Guard and Reserve matters.

The Board considers issues from many sources including: the Congress; the Office of the Secretary of Defense; the Military Services; Service committees, councils, and boards; theater commanders; and individual National Guard and Reserve members. The Board establishes and maintains communications with public and private individuals and agencies outside the Department of Defense, as necessary, to accomplish its mission.

The law requires "an annual report from the Reserve Forces Policy Board on the Reserve programs of the Department of Defense . . ." (10 USC 113(c)(3)). The report is submitted annually, by the Secretary of Defense, to the President and the Congress. It includes the Coast Guard Reserve, which is in the Department of Transportation during peacetime. The report addresses recommendations for changes to policies, procedures, or laws which affect the Reserve components.

The Board's independent review of Reserve component issues is presented, as well as a consensus evaluation of Reserve component programs. The report includes the collective views of the Board members.

## Prologue

This report reflects the issues considered by the Board during fiscal year 1992 (October 1, 1991 through September 30, 1992). Operational missions in the past year, including a commitment to the war against illegal drugs, and participation in numerous humanitarian efforts, highlight and emphasize the need and the value of a ready and responsive Reserve.

## Organization of the Report

The report is divided into eight chapters: Contributions of the Reserve Components to the Total Force; Force Structure; Roles and Missions; Personnel; Training and Mobilization Readiness; Equipment; Facilities; and Environmental Issues. Board recommendations follow each topic. A list of abbreviations and acronyms and an index have been provided to facilitate its use as a reference work.

All data contained in this report is as of September 30, 1992 unless otherwise indicated. Certain policy and legislative changes have been enacted since September 30, 1992. In those cases where this information was available prior to press time, those changes have been noted.

## History of the Reserve Forces Policy Board

In 1992, the Reserve Forces Policy Board commemorated the 40th anniversary of its

founding. Tracing its origin back to President Truman's Executive Order 10007 of October 15, 1947, the Board first operated as the Committee on Civilian Components. The Committee became the Civilian Component Board in 1949, and acted as an administrative body within the Department of Defense.

On July 9, 1952, Congress passed the Armed Forces Act of 1952. This Act established the Reserve Forces Policy Board to serve as "the principal policy adviser to the Secretary of Defense on matters relating to the reserve components." The Reserve Officer Personnel Act in 1954, and the Reserve Bill of Rights and Revitalization Act in 1967, underscored the Board's role and expanded its authority, responsibility, and membership.

The United States is unique among world military powers by providing, in the Board, a mechanism by which the seven Reserve components participate in the formulation of major policies affecting the role of their forces in the national defense. The Board's statutory authority and independence make this participation effective.

The Board continues to operate as part of the Secretary of Defense's team, and is a means by which the Secretary brings into consultation the entire range of Active, National Guard, and Reserve expertise.

Individuals who have served as chairmen and military executives on the Board, from its inception to the present, are:

#### Chairmen

Charles H. Buford  
Inception - March 1953

Arthur S. Adams  
March 1953 - September 1955

Milton G. Baker  
September 1955 - September 1957

John Slezak  
October 1957 - September 1977

Louis J. Conti  
October 1977 - September 1985

Will Hill Tankersley  
October 1985 - October 1989

John O. Marsh, Jr.  
November 1989 - Present

#### Military Executives

RADM Irving M. McQuiston, USNR  
Inception - June 1959

MG Ralph A. Palladino, USAR  
July 1959 - December 1968

Maj Gen John S. Patton, USAFR  
January 1969 - January 1973

RADM John B. Johnson, USNR  
January 1973 - January 1975

MG W. Stanford Smith, USAR  
January 1975 - April 1979

Maj Gen Joseph D. Zink, ANGUS  
May 1979 - June 1983

LTG LaVern E. Weber, ARNGUS  
June 1983 - June 1984

MG James D. Delk, ARNGUS  
September 1984 - August 1986

MG William R. Berkman, USAR  
August 1986 - July 1992

MG William A. Navas, Jr., ARNGUS  
August 1992 - Present

#### Comments and Additional Copies

The Board appreciates the helpful comments and recommendations that have followed previous reports. A limited number of copies of this report are available for official distribution. Comments and requests for additional copies should be addressed to:

**Reserve Forces Policy Board  
Office Of The Secretary Of Defense  
7300 Defense Pentagon  
Washington DC 20301-7300**

(703) 697-4486 



# Contributions of the Reserve Components to the Total Force

---

1



*"Under the Total Force Policy, the National Guard and Reserve are now recognized for their importance to National Security and have been modernized and integrated into a Combat-Ready Force. The progress achieved by the Reserve components during the past four years has been greatly facilitated by the Reserve Forces Policy Board."*

George Bush  
President of the United States  
October 1992

## Total Force Policy

The Department of Defense (DoD) defines the Total Force as "The totality of organizations, units, and manpower that comprise the Defense Department's resources for meeting the national military strategy. It includes the manpower resources comprising DoD Active and Reserve military personnel, DoD civilian personnel, contractor staff, and host-nation support personnel." The Department of Defense implemented the Total Force Policy in 1973. It has been fundamental to U.S. national security policy ever since.

Today, the Reserve components are full partners with the Active components under the Total Force Policy. The efforts made over the last decade to strengthen the Reserve components have paid great dividends. Reserve component units have been integrated into virtually all theater operational plans. It has been understood since the early eighties that large-scale combat operations could not be successfully conducted without the Reserve components.

Their increased involvement in contingency operations has demonstrated that their use in even regional scenarios is no less essential, especially in early mobilization support and reinforcement roles. Since the Total Force Policy was implemented, the Reserve components have achieved unprecedented levels of capability and readiness. This readiness has been the critical factor in the ability of the Reserve components to successfully respond to military aggression in the Persian Gulf, as well as to domestic crises (such as riots in Los Angeles and disaster relief in Florida, Louisiana, and Hawaii) and numerous humanitarian efforts abroad.

*The Board commends the National Guard and Reserve for their outstanding contributions to national security, at home and abroad, in peace and in war.*

In its Report on the Department of Defense Appropriation Bill for fiscal year 1992, the Senate Committee on Appropriations acknowledged the contribution of the Reserve components and their essential role in the Nation's total defense capability as follows:

"... The Committee directs that, as a

minimum, the force structure appropriations of all components maintain the existing combat force structure, to include special operations forces, and such other combat, combat support and combat service support as necessary to maintain the specified level. Preserving the existing force structure will not only provide an insurance force for this period of realignment of international relationships but also a locally visible military presence and a link between the military and civilian communities throughout our nation which will foster public support for the military . . . ."

*The Board commends the Congress for its continued strong support of the Reserve components and the Total Force Policy.*

## Total Military Mobilization Manpower

Table 1-1 provides the percentages of military personnel, by category, who are available for mobilization.

## Composition of the Reserve Components

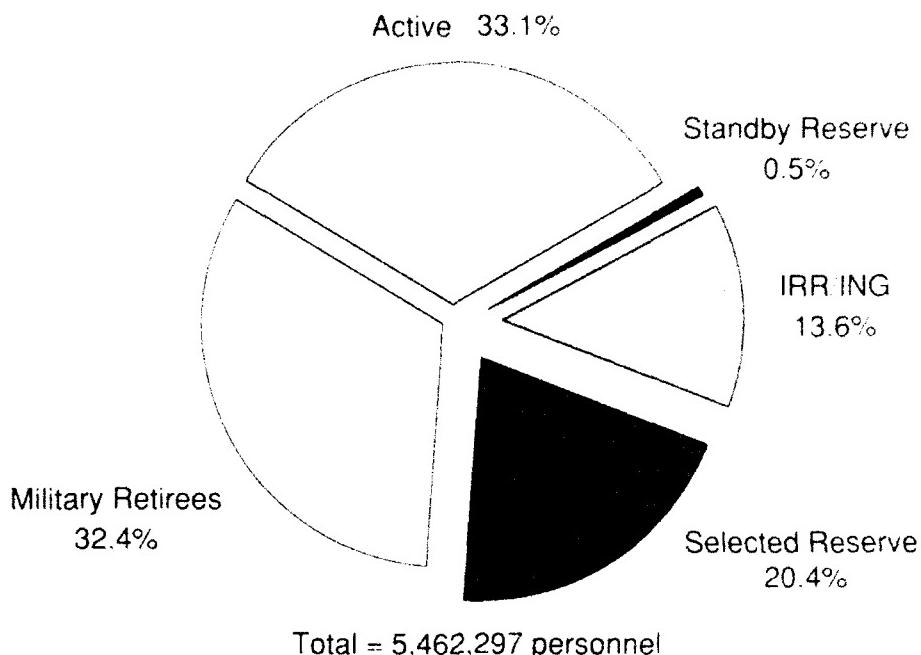
The seven Reserve components are the Army National Guard, Army Reserve, Naval Reserve, Marine Corps Reserve, Air National Guard, Air Force Reserve, and Coast Guard Reserve.

All Reserve component personnel are assigned to one of three categories: the Ready Reserve, the Standby Reserve, or the Retired Reserve. All National Guard members are in the Ready Reserve.

## Ready Reserve

The Ready Reserve consists of the Selected Reserve (SELRES), the Individual Ready Reserve (IRR), and the Inactive National Guard (ING). [Note: The Air National Guard does not have an ING.] Some personnel are organized in units; others train as individuals. All are subject to recall in time of war or national emergency. When the appropriate conditions are met, the President may involuntarily order members of the Selected Reserve to active duty by exercising his call-up authority under Title 10

**Table 1-1  
TOTAL MILITARY MOBILIZATION MANPOWER**



Source: Assistant Secretary of Defense for Reserve Affairs.  
Data as of September 30, 1992.

U.S.C. 673b. Members of the Coast Guard Reserve may be ordered to active duty by the Secretary of Transportation for up to 30 days to augment active forces during serious disasters. National Guard and Reserve members may volunteer for short-term active duty to meet training requirements or operational needs of the Active components.

The Selected Reserve is comprised of Reserve component personnel assigned to units, Full-Time Support (FTS) personnel, and individuals who serve as Individual Mobilization Augmentees (IMA).

Selected Reserve units may be either operational or augmentation units. Operational units train and deploy as units. Augmentation units train as units in peacetime, but are absorbed into Active units upon mobilization. Selected Reserve units are manned by drilling members of the Reserve components and supported by Full-Time Support civilian, Active or Reserve component personnel.

Selected Reservists who have not completed

initial training are mobilizable, but cannot be deployed on land outside the United States until completion of minimum training requirements.

The Individual Ready Reserve (IRR) and Inactive National Guard (ING) are composed of Reserve component members not assigned to units. Individual Ready Reserve and Inactive National Guard members are trained individuals who previously served in the Active component or Selected Reserve. Individual Ready Reserve and Inactive National Guard members usually have a remaining military service obligation. They are liable for mobilization and for limited involuntary active duty for training. They may train voluntarily for retirement points and promotion, with or without pay.

Table 1-2 shows the composition and approximate size of the Ready Reserve.

The Standby Reserve consists of personnel, such as key federal employees, who are not required to train and are not assigned to units. These individuals could be mobilized to fill specific manpower needs.

**Table 1-2**  
**COMPOSITION OF THE READY RESERVE<sup>1</sup>**

Ready Reserve 1,857,800			
Selected Reserve 1,114,900			
Units & Full-Time Support 1,085,500			
Units <sup>2</sup> (Paid Drill Strength Only) 949,800	Full-Time Support <sup>3,4</sup> 135,700	Individual Mobilization Augmentees 29,400	Individual Ready Reserve/ Inactive National Guard 742,900

Notes:

1. Numbers rounded to nearest hundred.
2. Includes training pipeline.
3. Excludes civilians.
4. Includes only those Military Technicians with dual status.

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve Components.  
Data as of September 30, 1992.

The Retired Reserve is comprised of:

- all personnel who are receiving retired pay resulting from Active and/or Reserve service.
- all Reserve personnel who are otherwise eligible for retired pay, but have not reached age 60 and have not elected discharge and are not voluntary members of the Ready or Standby Reserve.
- retired enlisted members who retired with 20 or more years of service on active duty.

When members in the last category complete a total of 30 years of service, they are placed on the appropriate Regular or Reserve retired list. All retired members who have completed at least 20 years of active federal service, Regular or Reserve, regardless of the retired list to which they are assigned, may be ordered to active duty by the Secretary of the appropriate Military Department (under regulations prescribed by the Secretary of

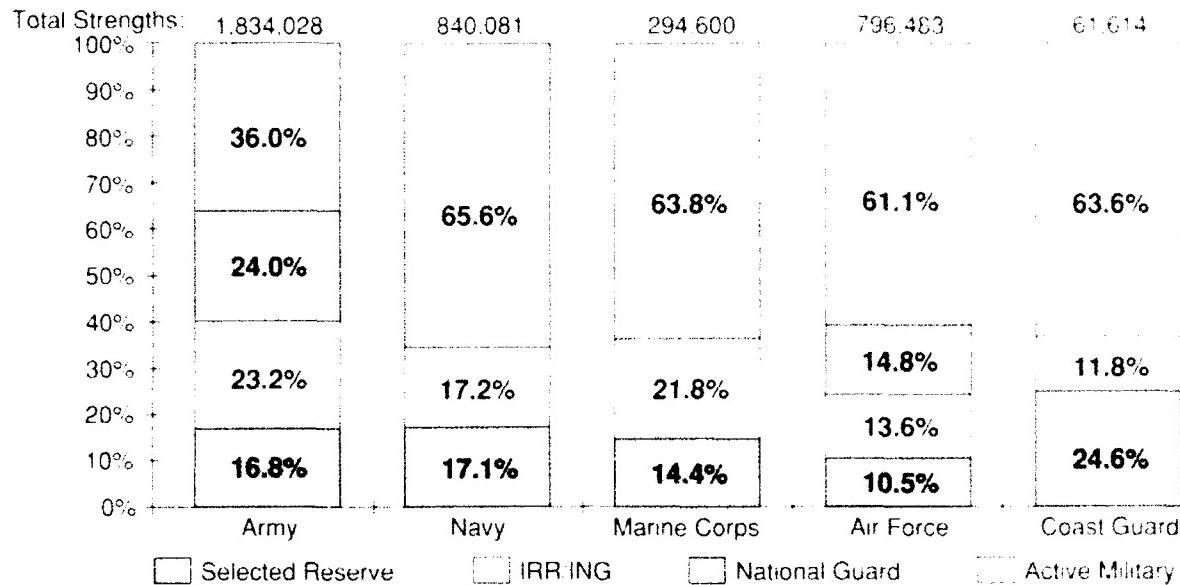
Defense) in accordance with Title 10 U.S.C. 688.

Table 1-3 shows the percentage, by Service, of the contributions of the Active and Reserve components to the Total Military Force.

### Employment of the Reserve Components

In the past, potential threats to the United States and its interests have been the primary factors in shaping force structure decisions. Events in preceding years have indicated that shaping structure on perceived threats alone is not always prudent. In fact, as demonstrated on several occasions this year, it would be much better to base structure decisions on capability, assuring that levels of capability are available regardless of threat-foreign or domestic. This method of using needed capabilities as the driving factor in the determination of structure has been promoted by the Chairman of the Joint Chiefs of Staff. By

**Table 1-3**  
**PARTNERS IN THE TOTAL MILITARY FORCE<sup>1</sup>**



**Note:**

1. Excludes civilian employees.
- Sources: Assistant Secretary of Defense for Reserve Affairs and the Coast Guard Reserve.  
Data as of September 30, 1992.



deriving a force based on capabilities, the military forces of this country can effectively deal with domestic crises as well as the more traditional roles which allow for appropriate response across the entire spectrum of conflict.

*The Board believes that it is desirable that all components, Active and Reserve, participate in force structure decisions.*

This joint cooperation will ensure that their respective abilities, contributions, and cost effectiveness are appropriately considered for the most viable future total force structure.

The Reserve components routinely accomplish a wide variety of training and operational tasks in locations around the world. Such varied and challenging training and operational missions enhance the readiness of the Reserve components and prepare members for world-wide missions.

## Resourcing the Reserve Components

The Secretary of Defense stated in his Annual Report to the President and the Congress, dated February 1992, that:

"We face a fundamental choice. We can make the investment required to maintain the strategic depth we have achieved, or we can

fail to secure our advantages, and watch threats grow while our capabilities weaken . . . America's defense cannot be rebuilt overnight. It takes years to produce an effective arsenal of ships, tanks, aircraft, and weaponry. It takes an ongoing commitment to maintain strong alliances. And most important, it takes great care to preserve the most important asset of our defense, the well-trained, top-quality soldiers, sailors, airmen, Marines, and Coast Guard members on whom our security depends . . . When, in later years, we ask ourselves if we have prepared well enough to support the next generation of servicemen and women who go into harm's way to protect our freedoms, our answer must be yes."

The Reserve components are resourced by four separate budget appropriations: personnel, operations and maintenance, military construction, and equipment procurement funds provided by the Services. Service procurement funding has been supplemented by dedicated Congressional appropriations each year since fiscal year 1982. Dedicated procurement data is discussed in the Equipment chapter.

Table 1-4 displays Reserve component appropriations for fiscal years 1991 through 1993. Amounts shown for procurement reflect the combined total of Service and dedicated procurement funding.



**Table 1-4**  
**RESERVE COMPONENT APPROPRIATIONS**  
(\$ in Millions)

	FY91	FY92	FY93	Percent Change FY91-FY92
<b>Army National Guard</b>				
Personnel	3,266.4	3,336.7	3,239.7	2.2%
Operations and Maintenance	2,015.1	2,211.6	2,295.6	9.8%
Military Construction	313.2	231.1	215.0	-26.2%
Procurement <sup>1</sup>	1,665.9	1,071.4	1,351.8	-35.7%
<b>Army Reserve</b>				
Personnel	2,178.8	2,378.8	2,170.5	9.2%
Operations and Maintenance	942.5	1,021.3	1,029.4	8.4%
Military Construction	77.4	110.4	42.2	42.6%
Procurement <sup>1</sup>	295.6	331.2	359.1	12.0%
<b>Naval Reserve</b>				
Personnel	1,606.1	1,714.6	1,653.2	6.8%
Operations and Maintenance	1,016.7	877.5	865.7	-13.7%
Military Construction	80.3	59.9	15.4	-25.4%
Procurement <sup>1</sup>	1,002.8	395.3	281.5	-60.6%
<b>Marine Corps Reserve<sup>2</sup></b>				
Personnel	285.7	348.9	345.5	22.1%
Operations and Maintenance	84.7	91.7	78.6	8.3%
Military Construction <sup>1</sup>	N/A	N/A	N/A	N/A
Procurement <sup>1</sup>	160.0	91.0	282.0	-43.1%
<b>Air National Guard</b>				
Personnel	1,099.5	1,148.5	1,168.0	4.5%
Operations and Maintenance	2,325.6	2,346.4	2,535.5	0.9%
Military Construction	180.6	217.6	305.8	20.5%
Procurement <sup>1</sup>	1,074.0	549.8	794.2	-48.8%
<b>Air Force Reserve</b>				
Personnel	597.4	722.9	737.8	21.0%
Operations and Maintenance	1,084.3	1,155.2	1,224.1	6.5%
Military Construction	38.6	9.7	29.9	-74.9%
Procurement <sup>1</sup>	281.3	157.5	249.3	-44.0%
<b>Coast Guard Reserve</b>				
Personnel	66.0	67.0	65.0	1.5%
Operations and Maintenance	8.0	8.0	8.0	0.0%
Military Construction	N/A	N/A	N/A	N/A
Procurement	N/A	N/A	N/A	N/A
<b>Totals</b>				
<b>Personnel</b>	<b>9,099.9</b>	<b>9,717.4</b>	<b>9,379.7</b>	<b>6.8%</b>
<b>Operations and Maintenance</b>	<b>7,476.9</b>	<b>7,711.7</b>	<b>8,036.9</b>	<b>3.1%</b>
<b>Military Construction</b>	<b>690.1</b>	<b>628.7</b>	<b>608.3</b>	<b>-8.9%</b>
<b>Procurement<sup>1</sup></b>	<b>4,479.6</b>	<b>2,596.2</b>	<b>3,317.9</b>	<b>-42.0%</b>

**Notes:**

1. Procurement includes P-1R amount budgeted by the Services as well as those funds appropriated by Congress for the Guard and Reserve Equipment accounts.
2. Marine Corps Reserve figures are included in Naval Reserve Military Construction.

Source: DoD Comptroller.

Data as of January 15, 1993.

The Reserve components provide a cost-effective means for augmenting the Active components and maintaining important capabilities in the Total Force. In most domestic roles, the Reserve components provide an immediate response capability. The citizen-soldier provides a low-cost deterrent to conflict, an immediate response capability to domestic crises, and a critical surge mobilization capability. The Reserve components have repeatedly demonstrated that they can accept additional roles and missions if adequately resourced.

For the past nine years, Reserve component military spending, in real terms, has declined. The *National Defense Authorization Act* and the *National Defense Appropriation Act for Fiscal Year 1993* provided a significantly reduced budget for the Department of Defense. Careful planning may enhance some readiness factors in selected areas. As equipment redistribution occurs within the Active components or more importantly, between the Active and Reserve components, equipment shortfalls may be reduced, and equipment readiness enhanced. Many other areas experience more significant shortfalls as reductions occur, for example, large numbers of Full-Time Support requirements in the Army National Guard and the Army Reserve are not funded. Reserve military construction also continues to be inadequately funded, and

training support funds are decreasing. Budget cuts should be based on needed capabilities and assigned roles and missions.

As stated by General Colin L. Powell, Chairman of the Joint Chiefs of Staff, "To the critics who say we must cut defense, I say we are cutting. There is a peace dividend, and we're paying it now. But we do not want to devastate our forces as we did in 1919, 1945, 1953, 1972-73 . . . In time, we came to regret each of those demobilizations. We must not repeat those mistakes. And we don't have to."

*The Board continues to recommend against the concept of "equal cuts" in Active and Reserve component budgets without appropriate analysis. Further, the Board believes it important to:*

- *provide sufficient Full-Time personnel support to the Reserve components,*
- *resource the Reserve components with the necessary personnel and equipment.,*
- *provide training support through adequate facilities, ranges, and schools,*
- *provide sufficient ground vehicle miles, flying hours, and steaming days (OPTEMPO) to maintain individual and unit proficiency,*
- *properly equip combat support and combat service support units, and greatly enhance training support for these units.* 



## Force Structure **2**

---



*"Today, more than ever, greater dependence is being placed on the Reserve components . . . Clearly, budget reductions and revised threat assessment will significantly impact the force structure of our Armed Forces. The potential for making increased use of citizen-soldiers has never been greater."*

Dick Cheney  
Secretary of Defense  
October 1992

## General

The mission of the Reserve components is to provide trained, well-equipped units and individuals for active duty in time of war, national emergency, or at such other times as the national security requires. In addition to this federal mission, the National Guard has a state mission to protect life and property, and to preserve peace, order, and public safety under state authority. The dual federal-state status of the National Guard is derived from the United States Constitution.

The Total Force Policy has served our Nation well. The Reserve components have made a substantial contribution to the strategy of deterrence. Reserve components have not only been included in the mission support of all major wartime operations, but also in ongoing operational missions including drug interdiction activities, nation building, and disaster relief.

*The Board recommends that lessons learned from both wartime and peacetime operations conducted in the last few years be carefully considered as they apply to the Total Force in future structuring decisions.*



## Total Force Structure

The Reserve components are an integral and significant part of the Total Force upon which our country relies for national security. Army National Guard and Army Reserve units provide essential combat, combat support, and combat service support units to the Total Army.

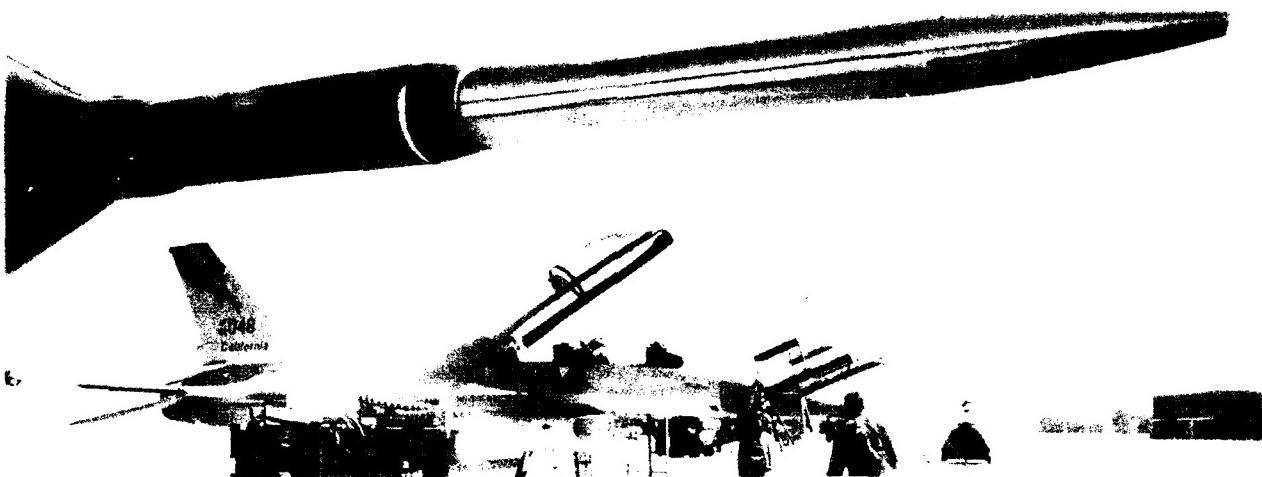
Naval Reserve units are an integral part of most mission areas of the Navy. They include fleet logistics, maritime patrol, carrier and helicopter wings; mobile construction forces; surface combatants; operational and medical support units.

The Marine Reserve Force includes a Marine division, a Marine air wing, and a force service support group. These forces provide combat, combat support, and combat service support of the same types as the Active component.

Air National Guard and Air Force Reserve units perform many combat and combat support missions, including counterair, interdiction, close air support, reconnaissance, strategic airlift, tactical airlift, aerial refueling, aeromedical evacuation, aerospace rescue and recovery, and special operations.

The Coast Guard Reserve augments the Coast Guard in all mission areas, and provides the Active component with specialized port security elements.

The future structuring of our military forces is receiving attention both inside and outside the Department of Defense. Caution has been expressed about force reductions because of experiences after demobilizations in 1919, 1945, 1953, and 1972-73. Once a reduction is made, it is extremely difficult to reverse. This is especially true in the case of the Reserve component, which is community based. It takes years to develop, organize, and train Reserve units. Some recommend that the Reserve component not be cut as much as proposed, to allow trained personnel being separated from the Active components an opportunity to continue their service in the Reserve components. Others suggested that Total Force readiness and capability would be more effectively maintained through increased use of the Reserve component. The Rand Corporation developed and studied alternative structures for the military forces. Their study was published in



December 1992. The Congressional Budget Office completed and published their own study of alternatives in September 1992.

*The Board recommends that careful analysis be conducted before approving Reserve component force reductions, to ensure full consideration of Reserve component cost effectiveness and force capability. If budget constraints cause the Services to make force structure reductions in the Active forces, a thorough analysis should be conducted on the feasibility and cost effectiveness of transferring that capability to the Reserve components.*

### Army National Guard/Army Reserve

The Army relies on Army National Guard and Army Reserve units to augment its wartime organization. Over half of the Army force structure currently exists in these Reserve components, including forces in each of the strategic force packages. The Army National Guard has an authorized strength of 440,000, plus 7,236 personnel who are in an Inactive National Guard status. The Army Reserve has an authorized strength of 308,000 soldiers in the Selected Reserve and an additional 418,592 members assigned to the Individual Ready Reserve.

A portion of Army National Guard and Army Reserve units are assigned to fill out Active divisions and are called "roundout" units. This program merges either a Reserve battalion or brigade with a number of similar sized Active units to form a "composite" higher echelon organization. The Army National Guard currently has four brigades and eight battalions

operating under this program, while the Army Reserve has one roundout brigade. Reserve component roundout units are given the same equipment priorities as their parent Active component units. Roundout units are an integral part of the units they support.

Another assignment for Army National Guard and Army Reserve units is called "roundup." Under this concept, an additional like-sized unit is added to the normal subordinate structure of the higher echelon organization giving it "more punch." The RAND study, *Assessing the Structure and Mix of Future Active and Reserve Forces*, considers various alternative structures, some of which will employ roundout and/or roundup companies and brigades within the Crisis Response and Early Reinforcing mission areas.

The Department of the Army has recommended significant reductions throughout the Army National Guard and Army Reserve over the next five years. These reductions include the loss of two divisions, four brigades, an armored cavalry regiment and a significant number of combat support and combat service support units. In addition, fiscal year 1994 calls for the conversion of the Army National Guard 34th and 40th Divisions to partially filled cadre units to be used as a reconstitution base, if needed. These reductions have created concerns about the adverse impact on readiness and the potential loss of trained Active component soldiers due to the lack of sufficient Reserve component positions. There is also concern that the Reserve components will be funded for and assigned missions which will lead to the "hollow force" situation that existed in the seventies.

The major force structure impact in the Army National Guard for fiscal year 1992 consisted of the deactivation of 25,000 spaces. The combat force structure will lose 19,700 of these spaces. Infantry and armor units, numerous artillery, aviation, ammunition handling, transportation, medical, maintenance, military police, and engineer units have been deactivated during fiscal year 1992. During this same period, some field artillery battalions and their supporting elements, rear area operations centers, terminal service and maintenance units, and a hospital have been activated. The Army National Guard expects an initial drop in readiness while units are configured, equipment redistributed, and the personnel are trained.

Of the deactivations cited for fiscal year 1992, two Army National Guard units (an evacuation hospital and a prisoner of war processing company) were previously mobilized for Operations DESERT SHIELD/STORM. Thirty-one additional previously mobilized units have been selected for deactivation in fiscal year 1993.

The most important issue involving force reduction in the Army National Guard is the resolution of the final force structure end-state and a firm reduction ramp to that final structure level. The final end-state force structure of the Army National Guard must be jointly addressed by DoD and Congress to resolve this readiness/force structure issue. Stabilization of the impacts caused by force structure reductions and the management of change throughout the Total Force is necessary to promote effective long-term planning.

The most significant structure impact on the Army Reserve during fiscal year 1992 was the initiation of the Department of the Army directed force structure reductions, complicated by the uncertainty in forecasted modernization efforts resulting from the reductions. These reductions will result in an Army Reserve end-strength reduction from 301,840 to 229,400 by fiscal year 1995. The initial result of these reductions caused a loss of 8,614 personnel spaces in fiscal year 1992. Readiness is being degraded due to turbulence caused by the short reaction time afforded to execute these required force structure actions.

The Army Reserve activated 58 units,

deactivated 84 units, and converted 182 units in fiscal year 1992. Deactivations included one engineer battalion, four field station 300-bed hospitals as well as medical support structure, and various team-level combat support and combat service support organizations. Activations included three helicopter companies, three general hospitals, and adjutant general team-level units.

As with the Army National Guard, some of the Army Reserve units selected for deactivation in fiscal year 1992 were mobilized for Operations DESERT SHIELD/STORM, including military police prisoner of war units, four medical station hospitals, team-level maintenance units, and military intelligence detachments. Force structure decisions were independent of involvement in Operations DESERT SHIELD/STORM.

Fiscal year 1993 will bring additional programmed force structure reductions in the Army Reserve of 46,008 spaces. Type units to be reduced include two aviation companies, chemical and biological units, engineer, medical, signal, adjutant general, judge advocate general, and quartermaster units.

At the end of fiscal year 1992, the Army Reserve Command's Aviation Division assumed total management for all Army Reserve aviation units in the continental United States. This change will enhance readiness by focusing the management and oversight of aviation logistics, training, funding, maintenance, personnel, and operations. The Army Reserve assumed an expanded role in assisting Allied governments in building the national infrastructure. In the areas of civil affairs, psychological operations, public affairs, postal operations, and legal assistance, Army Reserve forces have the expertise to provide valuable assistance to host governments. Nation assistance provides realistic training in addition to rehearsing mobilization and overseas deployment skills. Army Reserve military intelligence units provided security assistance through ground surveillance radar, and imagery intelligence. Army Reserve medical units made significant contributions to civil works projects, from disaster relief projects to cleanup of landfills.

Army National Guard and Army Reserve contributions to the Total Army are reflected in Table 2-1.

**Table 2-1**  
**ARMY NATIONAL GUARD AND ARMY RESERVE**  
**CONTRIBUTIONS TO THE TOTAL ARMY**

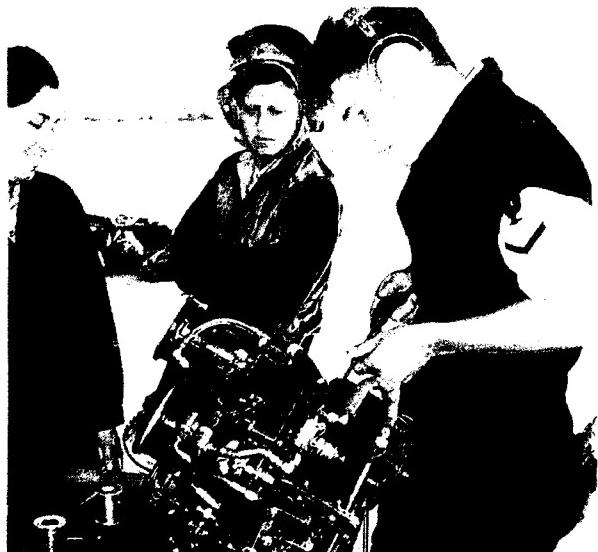
<u>Unit Types</u>	<u>Army National Guard Number Units</u>	<u>Army Reserve Number Units</u>	<u>Combined Percent of Total Army</u>
Infantry Divisions	5	0	100%
Training Divisions	0	12	100%
Chemical Brigades	1	3	100%
Water Supply Battalions	2	3	100%
Training Brigades	0	3	100%
Enemy Prisoner of War Brigades	0	1	100%
Theater Support Group	0	1	100%
Heavy Helicopter Units	3	0	100%
Judge Advocate General Units	4	137	100%
Civil Affairs Units	0	36	97%
Petroleum Support Battalions	7	6	93%
Public Affairs Units	32	26	87%
Medical Brigades	3	9	86%
Chemical Battalions	2	9	85%
Separate Brigades	10	1	79%
Medical Groups	3	7	77%
Maintenance Battalions	21	17	73%
Corps Support Group	4	15	73%
Psychological Operation Units	0	36	72%
Motor Battalions	10	14	71%
Engineer Battalions (Combat Heavy)	14	17	70%
Ordnance Battalions	1	5	67%
Petroleum Groups	0	2	67%
Theater Defense Brigades	3	1	67%
Hospitals	21	50	66%
Engineer Battalions (Combat)	42	16	64%
Field Artillery Battalions	95	11	63%
Assault Battalions	12	5	61%
Terminal Battalions	0	4	57%
Military Police Battalions	9	7	55%
Medium Helicopter Battalions	4	2	55%
Military Police Brigades	4	2	55%
Corps Support Command	2	2	50%
Armor Divisions	2	0	50%
Area Support Groups	9	8	49%
Attack Helicopter Battalions	21	3	45%
Special Forces Groups	2	2	44%
Aviation Brigades	15	0	41%
Signal Battalions	31	4	40%
Theater Army Area Commands	0	2	40%
Armored Cavalry Regiments	2	0	40%
Military Intelligence Battalions	7	15	39%
Air Defense Brigades	3	0	33%
Air Defense Battalions	17	0	33%
Mechanized Divisions	2	0	29%
Engineer Battalions (Topographical)	1	0	25%
Light Infantry Divisions	1	0	20%

Sources: Army National Guard, Army Reserve and Army (DAMO-FDF).  
Data as of September 30, 1992.

## Naval Reserve

The Selected Naval Reserve is organized into two types of units for alignment with gaining commands.

- **Commissioned Units:** Reserve combat units, with organic equipment, such as aircraft squadrons, Naval Reserve Force (NRF) ships, cargo handling battalions, mobile inshore undersea warfare units, and mobile construction battalions. These units are tasked to deliver a complete operational entity to the operating force and are commanded by either Active or Reserve component officers, and manned primarily by Selected Reserve personnel. Thirty-two percent of Selected Reserve personnel are assigned to commissioned units.
- **Augmentation Units:** Units which augment Active component commissioned units and operating staffs with trained personnel. Such units are tailored to augment designated ships, the military sealift command, specialty warfare commands, Marine expeditionary forces, security groups, intelligence staffs, communication and meteorological activities, medical and dental facilities, intermediate maintenance units, shore command and headquarters organizations. Their function is to allow for peak operations for an indefinite period of time. They also provide a surge capability, and then sustain the high level of activity required to support deployed forces. Sixty-eight percent of the Selected Reserve personnel serve in augmentation units.



Naval Reserve Force ships are under the operational control of the Commanders-in-Chief, Atlantic or Pacific Fleet (FLTCINCs), while those designated as Reserve Frigate Training ships (FFTs) come under the operational control of Commander, Surface Group Six, who is assigned to the Commander, Naval Reserve Force. Naval Reserve personnel train on Active and Naval Reserve Force ships and craft, providing the NRF ships approximately one-third of their mobilization manpower. NRF ships are manned (at reduced strength from normal peacetime levels) by Active component personnel, Training and Administration of Reserve (TAR) program personnel, and Selected Reserves.

In fiscal year 1992, the Naval Reserve deactivated and decommissioned eight frigates, seven minesweepers (three of which were activated in support of Operations DESERT SHIELD/STORM), two Reserve Fleet Hospitals, a Salvage and Rescue ship, and one naval construction battalion. The most significant Naval Reserve force structure change in fiscal year 1992 was the establishment of the Reserve Frigate Training Program consisting of eight FFTs and the decommissioning of the Knox Class Frigates (FFs). The FFTs provide the training platforms for four crews each, enabling the reconstitution and activation of an additional thirty-two FFs when required.

On April 10, 1992, the reorganization of the Naval Construction Force placed all construction battalion assets under the direct control of the FLTCINCs. These organizations will be a unique mixture of Active and Reserve personnel. The new organizations are active commissioned commands responsible for the operational construction tasking and military training of both Active and Reserve personnel.

The single most important issue to the Naval Reserve is the Congressionally mandated Total Force Assessment and its impact on force structure as a result of the anticipated redistribution and re-sizing of the roles and missions of the Navy. The restructuring of Naval Reserve manpower and personnel to Base Force levels may require refocusing Naval Reserve capability when the results of the Total Force Assessment are known.

Contributions by the Naval Reserve to the Total Navy are displayed in Table 2-2.

**Table 2-2**  
**NAVAL RESERVE CONTRIBUTIONS TO THE TOTAL NAVY**

<b>Unit Type</b>	<b>No. of Units</b>	<b>Percent of Navy<sup>1</sup></b>
Logistic Aircraft Squadrons (U.S. Based)	13	100%
Mobile Inshore Undersea Warfare Units	28	100%
Strike Rescue/Special Warfare Support Helicopter Squadrons	2	100%
Naval Control of Shipping (Military Personnel)	2,477	99%
Cargo Handling Battalions	13	93%
Mobile Construction Battalions	16	68%
Intelligence Program (Personnel)	5,030	60%
Mobile Diving & Salvage Units	14	60%
Special Boat Units	4	57%
Ocean Minesweepers	6	55%
Fighter Composite/Service Squadrons (U.S. Based)	2	50%
Mobile Mine Assembly Groups (MOMAG)	23	48%
Fleet Hospitals	7	47%
Airborne Mine Countermeasures	2	40%
Frigates (FFG-7s/FF-1052s)	24	40%
Maritime Air Patrol Squadrons	13	39%
LAMPS MK-I Anti-Submarine Warfare Squadrons	3	33%
Explosive Ordnance Disposal Units	5	32%
Naval Special Warfare Units	17	28%
Carrier Air Wings	2	14%
Amphibious Warfare Ships	3	5%

**Note:**

1. Percentages determined by counting like-type units or personnel.

Source: Naval Reserve.

Data as of September 30, 1992.

### **Marine Corps Reserve**

The Active and Reserve components of the Marine Corps are closely integrated through horizontal fielding of equipment, weaponry, technology, and training. When task organized, there is no distinction between Active and Reserve Marines, as demonstrated by the success of Operation DESERT STORM.

The mission of the Marine Corps Reserve is to provide trained and qualified units and individuals for active duty in time of war, national emergency, and at such times as national security may require. The roles of the Marine Corps Reserve are to augment and

reinforce existing Active component units. Selected Marine Corps Reserve (SMCR) units are not categorized as early or late deploying. They are considered "M-Day" assets.

The Marine Reserve Force (MARRESFOR) provides peacetime command, control and resource allocation for the Marine Corps Reserve. It provides unity of command and cohesion in Marine Corps Reserve training, operations and mobilization planning.

The major components of MARRESFOR are the 4th Marine Division (Rein), the 4th Marine Aircraft Wing, the 4th Force Service Support Group, the Marine Corps Reserve Support

**Table 2-3**  
**MARINE CORPS RESERVE CONTRIBUTIONS TO THE TOTAL MARINE CORPS**

<u>Unit Types<sup>1</sup></u>	<u>No. of Units</u>	<u>Percent of Marine Corps</u>
Civil Affairs Groups	2	100%
Air-Naval Gunfire Liaison Companies	2	50%
Tank Battalions	2	50%
Force Reconnaissance Companies	2	40%
Light Armored Infantry (LAI) Battalions	1	33%
Infantry Regiments	3	25%
Engineer Support Battalions	1	25%
Landing Support Battalions	1	25%
Artillery Regiments	1	25%
<b>Aircraft Types<sup>2</sup></b>		
Marine Aircraft Wing	1	25%
Marine Aerial Refueler Transport Squadron	2	33%
Marine Wing Headquarters Squadron	1	25%
Marine Aircraft Group	4	25%
Adversary Squadron	1	100%
Marine Observation Squadron	1	33%
Marine Aviation Logistics Squadron	4	25%
Marine Light Attack Helicopter Squadron	2	22%
Marine Fighter/Attack Squadron	4	21%
Marine Attack Squadron	2	17%
Marine Medium Helicopter Squadron	2	11%
Marine Heavy Helicopter Squadron	1	9%
Marine Air Control Group	1	25%
Marine Wing Communications Squadron	2	40%
Firing Battery	2	33%
Headquarters and Headquarters Squadron	1	25%
Marine Air Support Squadron	1	25%
Low Altitude Air Defense (LAAD) Battalion	1	25%
Light Antiaircraft Missile (LAAM) Battalion	1	25%
Firing Battery	2	25%
Marine Air Control Squadron	1	14%
Marine Air Traffic Control Detachment	1	8%
Marine Wing Support Group	1	25%
Headquarters and Headquarters Squadron	1	25%
Marine Wing Support Squadron	4	25%

**Notes:**

1. Percentages determined by counting like-type units.
2. Percentages determined by counting primary authorized aircraft.

Source: Marine Corps Reserve.

Data as of September 30, 1992.

Command, and the command elements of two Marine Expeditionary Brigades. Significant reorganization activities, internal to MARRESFOR, include:

- fielding the M1A1 tank,
- anti-tank (TOW) companies reduced to one platoon per tank battalion (the remaining TOW sections are distributed to the infantry battalions),
- the artillery regiment reverted from five to four battalions and includes eighteen batteries,
- six aviation units were deactivated and one aviation unit was transferred to the Active component.

The roles of MARRESFOR are directly linked to SMCR end strength. At the currently authorized end strength, they maintain a capability to fully augment and reinforce the Active component ground, air, and combat service support structure. At the fiscal year 1995 programmed end strength, MARRESFOR retains the capability to augment, but not reinforce, the Active component. The mobilization of the Marine Corps Reserve is dependent upon the requirement. SMCR units are prepared to independently accomplish a variety of assignments or to perform an assigned role with Active component units. Therefore it is only necessary to mobilize those units and individuals required by the mission.

At 64,200, the Individual Ready Reserve (IRR) is a source of individual manpower to be used during mobilization for base support and combat casualty replacements. Marine Corps mobilization plans include provisions for intensive combat refresher training and individual skill training, prior to deployment to the combat theater.

Contributions of the Marine Corps Reserve to the Total Force Marine Corps are displayed in Table 2-3.

## Air National Guard/Air Force Reserve

The most important force structure issue facing the Air Reserve components is determining what will be the required force

structure level for the United States and the appropriate mix of the Active and Reserve forces. Active forces should be sized to allow them to maintain a forward presence, respond immediately to the initial stages of a fast-breaking contingency, and execute the majority of taskings required to respond to small, "brush-fire" contingencies.

Most Air National Guard and Air Force Reserve units are aligned with wartime gaining commands and train with them regularly. This facilitates integration into the Active force upon mobilization. In addition to flying and maintaining Reserve component aircraft, thousands of Air Force Reserve personnel fly and maintain Active component aircraft in the Air Force Reserve Associate Program.

During fiscal year 1992, the Air National Guard activated an Air Refueling Squadron. Although there were no deactivations, numerous conversions took place during fiscal year 1992 including F-4E and A-7D/K to F-16 and KC-135 aircraft.

The Air Force Reserve reorganized its entire wing/group structure to follow the objective wing model established by the Chief of Staff and the Secretary of the Air Force. Under the objective wing concept, command and support structures were realigned, and gaining Major Commands re-identified. Some support units were activated, some were deactivated, and some were renamed to comply with the objective wing concept. Specifically, three communications squadrons, a weather maintenance flight, and a management engineering flight were deactivated in fiscal year 1992, while three communications squadrons and one airlift squadron were activated. The 305th Rescue Squadron deactivated on September 30, 1992. Other major flying units are expected to deactivate in fiscal year 1993.

Although no significant problems exist at present the Air Force Reserve's largest concern is potential reductions in the Air Force budget. Flight time to maintain aircrew proficiency is funded near the minimum level necessary to maintain proficiency.

Contributions of the Air National Guard and Air Force Reserve to the Total Air Force are displayed in Table 2-4.

**Table 2-4**  
**AIR NATIONAL GUARD AND AIR FORCE RESERVE**  
**CONTRIBUTIONS TO THE TOTAL AIR FORCE**

	<u>Air National Guard Number Units</u>	<u>Air Force Reserve Number Units</u>	<u>Combined Percent of Total Air Force</u>
<b>Flying Units</b>			
<b>Aircraft<sup>1</sup></b>			
Aerial Spraying	0	8	100%
Weather Reconnaissance	0	8	100%
Strategic Interceptor Force	234	0	100%
Tactical Reconnaissance	84	0	100%
Air Rescue/Recovery	24	22	66%
Tactical Airlift	181	100	62%
Tactical Air Support	24	0	41%
Tactical Fighters	760	237	34%
Special Operations	6	14	29%
Support Aircraft	53	0	27%
Aerial Refueling/Strategic Tankers	158	30	25%
Strategic Airlift	23	39	17%
<b>Aircrews<sup>2</sup></b>			
Aeromedical Evacuation	1,226	4,147	97%
Strategic Airlift (Associate)	0	4,657	50%
Tanker/Cargo (Associate)	0	1,381	43%
Aeromedical Airlift (Associate)	0	237	30%
<b>Non-Flying Units</b>			
Aircraft Control & Warning	3	0	94%
Aerial Port	23	68	70%
Engineering Installation	19	0	70%
Combat Communications	46	0	69%
Combat Logistics Support Squadrons	0	6	59%
Tactical Control	37	0	49%
Civil Engineering <sup>3</sup>	98	54	44%
Strategic Airlift Maintenance (Associate)	0	34	40%
Security Police	89	42	24%
Medical <sup>4</sup>	92	91	18%
Weather	34	0	15%
Reconnaissance (Technical)	2	0	13%
Communications Squadrons	3	34	6%
Electronic Security	1	2	1%

**Notes:**

1. PAA count.
2. Authorized personnel.
3. Includes Red Horse Units.
4. Excludes aeromedical and evacuation personnel.

Sources: The Air National Guard and the Air Force Reserve.

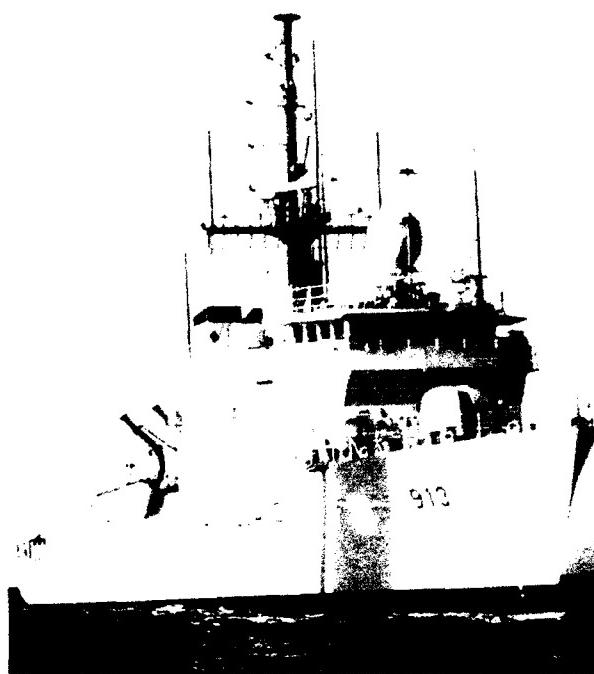
Data as of September 30, 1992.

## Coast Guard Reserve

The Coast Guard Reserve is authorized 15,150 personnel, but funded strength in fiscal year 1992 was only 11,500. There are currently 7,280 personnel in the Individual Ready Reserve. Coast Guard Reserve units are primarily training units, responsible for augmentation of Active component commands. Except for three deployable port security units, which mobilize as units, the Coast Guard Reserve augments Active component units upon mobilization.

Several Coast Guard Reserve units were deactivated in fiscal year 1992, and more will be deactivated in fiscal year 1993. Four of these units are isolated, inland units that do not have adequate training opportunities. These deactivations enhance the overall training of the Coast Guard Reserve force by enabling them to meet the program objective of providing training through augmentation of Active Coast Guard units. The long term policy concerning structure, location, and training of the deployable PSUs is under consideration as the lessons learned from the deployment and return of PSUs in support of Operations DESERT SHIELD/STORM are being studied. Those lessons will be carefully considered as changes to the PSU structure and support organization are developed.

Planning criteria from the Department of Defense must be received in a timely manner to



ensure the Coast Guard's deliberate planning process reflects current requirements. Coast Guard Selected Reserve strength must be funded at the same percentage of mobilization requirements as the other Reserve components to guarantee that the Coast Guard will be capable of performing its mobilization mission.

Contributions by the Coast Guard Reserve to the Total Coast Guard, expressed in terms of billets, are displayed in Table 2-5.

**Table 2-5  
COAST GUARD RESERVE  
CONTRIBUTIONS TO THE TOTAL COAST GUARD**

<u>Unit Type</u>	No. of <u>Billets</u>	Percent of <u>Coast Guard<sup>1</sup></u>
Deployable Port Security Units	351	100%
Marine Safety Office	3,253	55%
Operational Shore Facilities	4,434	35%
Command & Control	2,273	30%
Repair/Supply/Research	1,362	26%
Vessels	1,480	13%
Air Stations	84	2%

Note:

1. Percentages determined by counting mobilization billets.

Source: Coast Guard Reserve.

Data as of September 30, 1992.

## Special Operations Forces

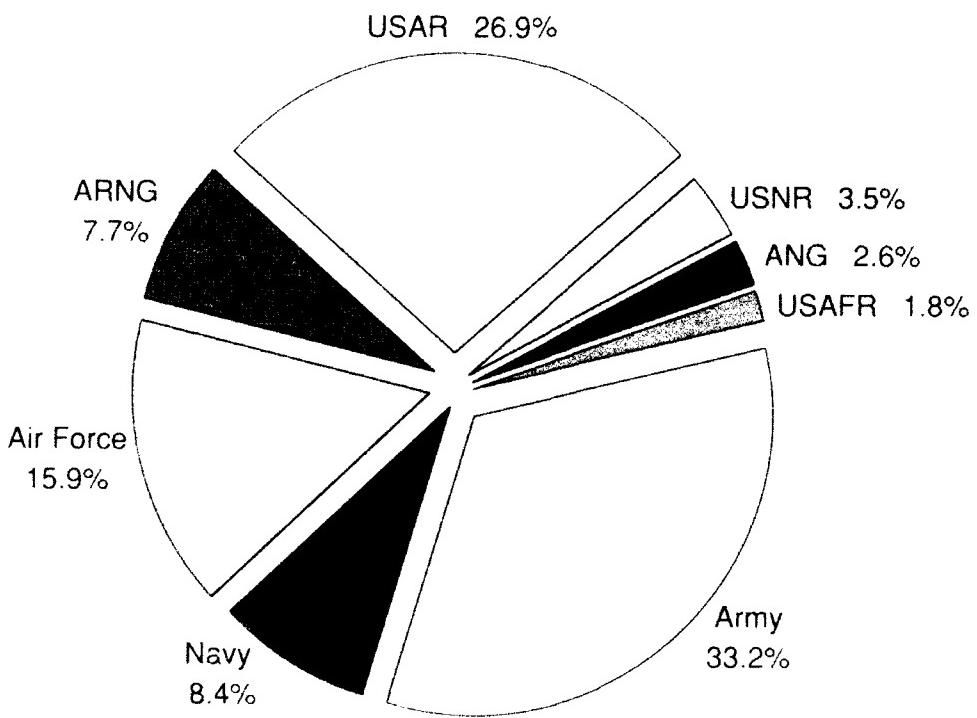
Special operations forces bring unique and important operational capabilities to all military operations in both peacetime and conflict. Army National Guard and Army Reserve special operations forces include special forces, rangers, special operations aviation, psychological operations, and civil affairs. Naval components include Sea, Air, and Land (SEAL) Teams, and special boat units. Air Force representation includes both rotary and fixed wing aircraft.

The Total Force has approximately 44,500 personnel dedicated to special operations. The Reserve components' contribution to special operations forces is found in Table 2-6.

Congressional language (Title 10 U.S.C. 167) provides that, "unless otherwise directed by the Secretary of Defense, all Active and Reserve component special operations forces (ARC SOF) of the armed forces stationed in the United States shall be assigned to the Special Operations Command (USSOCOM)." Current law also states that intelligence and ARC SOF units assigned to USSOCOM are not available unless mobilized or called to active duty. Consequently, in peacetime, CINCs must coordinate with the Services on all matters concerning ARC SOF.

Reserve component special operations forces provide the Department of Defense with a significant capability. Unit personnel stabilization provides the Total Force with a

**Table 2-6  
RESERVE COMPONENT CONTRIBUTIONS  
TO SPECIAL OPERATIONS FORCES**



Source: Assistant Secretary of Defense for Special Operations/Low Intensity Conflict.  
Data as of September 30, 1992.



"bank" of hard-to-train skills available when the need arises. The Army National Guard contributes two special forces groups and one special operations aviation battalion to Special Operations. The Army Reserve also contributes two special forces groups, three psychological operations groups, and three civil affairs commands, as well as elements at Brigade level and below. Approximately, forty percent of the Army Reserve civil affairs force and five percent of its psychological operations capability were deployed in Operations DESERT SHIELD/STORM.

Naval Reserve units in the Naval Special Warfare Program provide planning, staffing, equipment maintenance, and training support to their various active duty Navy and joint commands. The Naval Special Warfare Program also includes two special boat squadrons and four special boat units.

The Marine Corps Reserve does not have units that are formally designated special operations units; however, the two Marine Reserve Civil Affairs groups represent 100 percent of the Marine Corps civil affairs capability, and are organized to augment and reinforce the Active component in the same manner as other Selected Reserve units.

The Air National Guard has one Special Operations Group assigned special operations missions. In addition to planned contingency taskings, the unit routinely provides volunteers to support Air Force requirements for peacetime taskings.



The Air Force Reserve has one Special Operations Wing which includes one AC-130A gunship squadron and one special operations helicopter squadron. Numerous Air Force Reserve special operations personnel were mobilized and deployed in support of Operations DESERT SHIELD/STORM. These personnel are often called on for priority search and rescue missions, as well as counter-drug support to law enforcement agencies.

The Coast Guard Reserve does not have special operations units.

Civil affairs units and personnel perform many essential functions prior to, during, and subsequent to military operations, such as assisting foreign governments with various governmental, public facilities, and economic functions as well as management of displaced persons and refugees. A recent civil affairs mission was Operation GUANTANAMO, in which Army Reserve civil affairs volunteers assisted in the management of camps for Haitian refugees. Reservists filling civil affairs positions acquire their functional expertise from their civilian education, professions, careers, and organizations, as well as through military training. Civil affairs units are currently found only in the Army and Marine Corps.

*The Board recommends that the Navy and Air Force consider identifying members of their Reserve components who, by reason of civilian education and professional experience, could be of potential value in augmenting civil affairs units in civil affairs operations.*

## **Force Structure Summary and Considerations**

Today greater dependence is being placed on the Reserve components. Most warfighting contingency plans and peacetime operations include the Reserve components. The use of the Presidential call-up authorities, and employment of Reserve component personnel

in support of numerous wartime operations in fiscal year 1991, and their repeated use for numerous nation building and domestic crises in fiscal year 1992, clearly demonstrates that Reserve components must maintain capabilities to react to the realities of global threats and to meet the domestic requirements of this Nation.

*The Board believes that equal-share Reserve component reductions when the Active component is reduced, without careful analysis, is not prudent.*

*The Board recommends that appropriate analysis, with total involvement of all components, and attention to the lessons learned from the various wartime and domestic operations of the last few years, be accomplished before approving such reductions. The final analysis must ensure full consideration of Reserve component cost effectiveness and maintenance of sufficient total force capability to counter the projected threats and domestic challenges of the future.*

*The Board further recommends that as budget constraints and consideration of reduced threats cause the Services to make force structure reductions in the Active forces, there should be a thorough analysis of the feasibility and cost effectiveness of transferring those capabilities to the Reserve components.* (S)



## Roles and Missions

3



*"Our forces . . . need to be able to fight and win anywhere in the world one day, keep the peace someplace else the next day and bring help to suffering people in yet another corner of the globe the day after that—or do it all on the same day, if necessary."*

*General Colin L. Powell  
Chairman, Joint Chiefs of Staff  
September 1992*

## General

The Board recognizes the enormous contributions made by Reserve component personnel to support both previous operations and those conducted during fiscal year 1992. The successes of the wartime deployment in Operations DESERT SHIELD/STORM, numerous overseas nation building and humanitarian operations, as well as the many peacetime Reserve component responses to disasters such as the devastation in Florida caused by Hurricane Andrew, were due in no small part to the outstanding response of National Guard and Reserve volunteers who made themselves available from the very beginning of these crises. These vital contributions are essential to the success of future wartime and peacetime operations.

At least five lessons appear applicable for inclusion in future Total Force strategies:

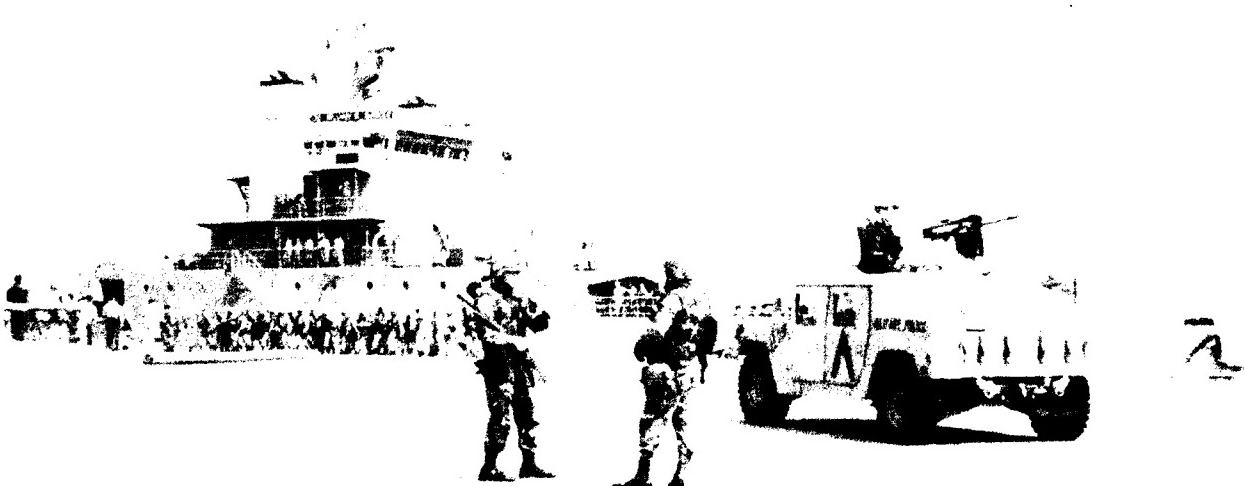
- The use and response of the Reserve components validates the Total Force Policy and lends strong support to the concept of national resolve through the inclusion of Reserve forces.
- An edge in technology and use of innovative doctrine contributes substantially to success while minimizing casualties.
- A competent, highly trained, and professional military force is essential to properly operate the highly technical equipment and to make the sound tactical decisions which accompany a successful military operation.

- The concept of a military strategy based on capability, and having both a peacetime and wartime focus is sound. Such a strategy favors quick response, and includes effective planning of available strategic lift, as well as the use of forward forces and prepositioned equipment.
- Operation plans which are exercised during peacetime improve the likelihood of success with minimal losses during wartime. Exercises should include mobilization, operations, and demobilization aspects.

*The Board commends the Total Force personnel who contributed to the success of these operations and encourages the application of lessons learned in the refinement of future doctrine, technology, policies, and procedures.*

## Future Risks and Opportunities

The old threat is gone; it has been replaced by new risks, dangers, and challenges: weakened control over nuclear weapons in the former Soviet Union, failed reforms in the former Soviet Union, regional conflicts, and sluggish economic growth in the United States. International tensions continue, fueled by change in Eastern and Central Europe, Third World unrest, competition between industrial powers, and numerous instabilities in an economically interdependent world. These are critical national and international issues that place enormous importance on what roles and missions we assign our military and how we provide the resources to meet these challenges. The reduced threat of global war also provides



us the opportunity to look at how we might effectively utilize our military resources to better serve our Nation and the world.

Perhaps the most important issue affecting the Total Force is the determination of the size, makeup, roles and missions of our military forces. Discussions are occurring at every level and across all Services. The concerns and concepts flowing out of these discussions assure broad considerations for the eventual *missions and structure assigned to our military forces*. Until recently, much of the focus has been based on the concept of reviewing likely foreign threats and determining what force would be needed to counter those threats. As events of the last two years have clearly demonstrated, our strategy cannot be based solely on what we perceive the future threats to be. Rather, our strategy must focus on capabilities, as well. What roles and missions will we be expected to assume, and what capabilities must we possess for success? Once determined, these capabilities must drive both the sizing and composition of our forces, and provide us with the means of accomplishing these roles and missions.

## **Support for the National Military Strategy**

The Board has engaged in continuous discussions with the senior leadership of this country, military and civilian, as we focus on future roles and missions for the Total Force. All Service components, Active and Reserve, have clearly demonstrated capabilities which lend themselves to meeting some of the challenges each of these roles and missions entails.

Traditional roles have long been the basis of determining the structure of our forces. In more recent years, a fundamentally new strategy has been the basis of force sizing. It includes the foundations of our national military strategy—strategic deterrence and defense, forward presence, crisis response, reconstitution—as well as early reinforcing and strategic reserves.

## **Roles and Missions**

Each of the Services has missions associated with each of these national security priorities.

Traditionally, the Army National Guard has its units designated in all mission areas from

forward presence through reconstitution. Additionally, the National Guard has State disaster response missions. The Army Reserve has combat support and combat service support units designated to support each strategic force package.

The Marine Reserve Force's roles are to augment and reinforce existing Active component units. Reconstitution can be provided through the use of a nucleus staff to rebuild a division, wing, or force service support group.

Both the Air National Guard and Air Force Reserve forces are designated as Forward Deployed, Rapid Reaction/Contingency, or Immediate Reinforcing.

The Coast Guard Reserve serves in packages of the Rapid Deployable Contingency Force, Associated Support Structures for Deploying Units, Immediate Reinforcing forces, and Reconstitution.

Every component within a given Service is basically capable of either assuming or contributing to that Service's mission. The scope of that capability may be limited by the response time imposed, the quantity of appropriate equipment or the number of skilled personnel available. However, these factors do not prevent the Reserve components from being assigned missions which require high skill levels and quick response. In fact, the Reserve components' response to the Persian Gulf crisis, and the domestic operations conducted this year, have demonstrated that Reserve component units and individuals can meet all their missions, responding well within the required short time-lines. The Reserve components have the capacity to mobilize quickly, but they must be programmed and resourced to adequately prepare them to do so.

Some roles that received less emphasis during the Cold War are becoming more important in a post Cold War era. These roles include an expanded civil affairs capability, humanitarian efforts, and nation building. Each component has capabilities which can be effectively used within these mission areas.

In an era where every foreseeable operation, foreign and domestic, in war or in peace, will require some aspect of civil affairs participation,

it is critical that each Service know what its civil affairs assets are. Even those Reserve components without current civil affairs missions need to recognize what capabilities their members and units possess and how they can be used in these mission areas.

*The Board recommends that each Reserve component identify the military and civilian individual skills of their members. This will facilitate the identification of individuals with special skills beyond their military specialty.*

As in previous years, fiscal year 1992 demonstrated a need for the skills and talents of the Reserve components to deal with domestic crises, as well as those abroad. During each disaster, the National Guard, occasionally augmented with Active and other Reserve component personnel, were called forth in service to respond to the crisis.

## Army National Guard

During fiscal year 1992, the National Guard responded to 322 state emergency missions in 51 of our 54 states and territories. Included were 4 civil disturbance missions, 112 natural disasters, and 206 domestic emergencies such as providing emergency power, potable water support, search and rescue missions, support to law enforcement, fire fighting, and general aviation support. These missions required the



use of 27,782 Guardsmen, and accounted for of 374,966 mandays. Significant domestic missions included flood and mud slide response in Puerto Rico, civil disturbance control support in Los Angeles, response to Hurricane Andrew in Florida and Louisiana, Typhoon Omar response in Guam, and Hurricane Iniki relief in Hawaii. Additionally, the ARNG completed 13 Medical Readiness Exercises (MEDRETEs) and numerous Engineer Readiness Exercises (ENRETEs) in Central and South America. In cases of widespread destruction or civil unrest, complete TOE/TDA units are usually activated for state emergency duty. Often selected individuals, based on their particular skills, are alerted and assembled to respond to a less widespread emergency from units in the closest proximity to the affected area. Whether responding with a unit or individual, these types of missions do not replace yearly training requirements; they serve to complement the annual training program, enhancing readiness.

The Congressional Budget Office study, *Structuring U.S. Forces After the Cold War: Costs and Effects of Increased Reliance on the Reserves*, released in September 1992, recommended that domestic missions be included in force structuring decisions: "Domestic missions may influence the required size of the National Guard . . . National Guard personnel routinely aid local emergency workers during natural disasters . . . domestic missions could require retaining a larger National Guard then would be necessary to meet foreign needs . . . these portions [Guard forces] would presumably be equipped differently than today's Guard forces, with, for example, more military police."

## Army Reserve

The Army Reserve participated in Operation DESERT CALM as part of the Southwest Asia residual force, performing crucial missions in support of consolidation and redeployment after the cease-fire. During Operation GUANTANAMO, Army Reserve volunteers augmented an Active component civil affairs battalion in the management of migrant camps filled with Haitian refugees. In Operation BALM RESTORE, 41 Army Reserve volunteers from an American Samoan unit were placed in support of the Federal Emergency Management Agency (FEMA) to assist in emergency disaster relief efforts resulting from Cyclone Val. When a

chemical spill threatened Duluth, Minnesota, 45 volunteers from a local Army Reserve medical company assisted in the emergency relocation of incapacitated and elderly civilians.

During disaster relief operations resulting from Hurricanes Andrew and Iniki, the Army Reserve also participated, primarily as volunteers from a variety of engineer, civil affairs, psychological operations, and public affairs units. The Army Reserve routinely participates in numerous other community-based projects such as the Atlanta Project, which seeks to rebuild the urban communities in Atlanta, and various other educational, environmental and social projects throughout this Nation.

### **Naval Reserve**

The Naval Reserve has participated in many operational missions during fiscal year 1992. The Naval Reserve air forces utilized the aircraft from 46 different squadrons to provide air support for counterdrug operations, sea trials deployments, operational detachments, and space shuttle support, as well as various joint military operations. The Naval Reserve surface forces provided support for Fleet Hospital offloads in Norway, Alaska, and Japan, as well as Pearl Harbor support, special ammunition support, support for the Subic Bay withdrawal, Guam support, and support of Operation DEEP FREEZE. Merchant Marine personnel provided mission support to Military Sealift Command, and NRF ships participated in numerous counterdrug missions, Western Pacific cruises, and extended goodwill cruises. Mobile Inshore Undersea Warfare personnel participated in Project NORTH STAR, FUERTAS DEFENSAS, BLUE STAR, and Operation WALLEYE.

Other operational projects conducted during fiscal year 1992 include air support of fire containment operations, the evacuation of trapped personnel, and disaster recovery support as a result of Hurricanes Andrew and Iniki, and Typhoon Omar, including the use of air, ship, and Naval construction battalion assets. In typical Reserve component traditions of service, the Naval Reserve has ongoing participation in hundreds of community-based projects, including outreach programs, education programs, charity drives, adopt-a-school projects, youth oriented programs, support for the elderly, and community

beautification. The Navy sponsors Campaign Drug Free, Personal Excellence Programs, Naval Science Awards Programs, Drug Abuse Resistance Education, as well as medical, firefighting, and environmental support programs.

### **Marine Corps Reserve**

The Marine Reserve Force provided helicopter and crew support to the joint task force during the Los Angeles riots, demonstrating their ability to respond to a no-notice call. Humanitarian operations/host nation support efforts were exercised as Civil Military Operations in COBRA GOLD 92, a Joint/Combined Exercise conducted in Thailand in May 92. Marine participation in minor construction efforts, such as village school and community center building and rehabilitation, was coordinated through the efforts of a Reserve Civil Affairs Group. Officers from this Group also participated in the medical and dental planning and execution efforts. Host nation support was also accomplished during CARIBBEAN 92-4, conducted in Grenada during July 1992. Minor engineer efforts were performed by Reserve Engineers from the 4th Combat Engineer Battalion and the 6th Engineer Support Battalion.

Marine Reservists sponsor Toys-for-Tots and provide support for many community related projects with color guards, equipment displays, facilities support, parades, and funeral details. Organizations supported by Marine Corps Reservists include the American Red Cross, Boy Scouts, Girl Scouts, veterans hospitals, and various veterans' groups. The Marine Reserve Force will increase its support of the Drug Demand Reduction Task Force beginning with the stand-up of a mobilization training unit for that purpose.

### **Air National Guard**

The Air National Guard combat communications community has been actively supporting worldwide requirements, including long-haul satellite connectivity and telephone switching to personnel still in the Southwest Asia area of operations, communications support to nation building teams in Central America, and communications support to authorities in Florida and Hawaii following Hurricanes Andrew and Iniki.



Air National Guard bilingual security police have been utilized in support of the Operation SUPPORT JUSTICE FOUR, 45-day deployments to Colombia, South America. Operation FUERTES CAMINO 93, in Panama, will use Air National Guard personnel not only in security roles, but also in both vertical and horizontal construction projects. The Air National Guard also supported humanitarian relief efforts in many areas of the world in fiscal year 1992. Major airlift support included support to Russia as part of Operation PROVIDE HOPE. They also provided support to the Governor of California during the Los Angeles riots, support to relief efforts in Somalia, support to relief efforts in Florida and Hawaii following Hurricanes Andrew and Iniki, and numerous other airlift missions in support of Air National Guard civil engineering, medical, and communications units performing humanitarian and host nations support missions throughout the world.

Air National Guard engineering and services continued a high level of support for civic action and humanitarian projects in Central and South America and the Caribbean. Working through the Commanders-In-Chief and the State Department, Air National Guard teams built schools, clinics, and community centers. Fiscal year 1992 also saw planning for the first Air National Guard engineering deployment supporting EUCOM humanitarian and civic assistance projects in Africa, culminating with the deployment to Mali in October 1992. Accomplishing these projects in Third World countries demonstrates the abilities, pride, and professionalism of America's citizen-irmen.

## Air Force Reserve

The Air Force Reserve airlift and tanker assets provided over 25 percent of Air Mobility Command's airlift capacity during fiscal year 1992. Associate and unit-equipped strategic airlift flew 20 humanitarian missions to the former Soviet Union (PROVIDE HOPE). Part of that effort included transporting the Air Force Reserve Band to Moscow for a concert and returning with the Vega spacecraft, donated to the Smithsonian Institution. Air Force Reserve aircrews are also providing support to Zagreb/Sarajevo in Bosnia-Hercegovina, having completed sorties into Sarajevo (PROVIDE PROMISE) and into Mogadishu (RESTORE HOPE). Four relief missions have been flown into South/Latin America. During the Los Angeles riots, the Air Force Reserve provided airlift support to the FBI, and flew missions in support of Typhoon Omar and Hurricane Allen. Additionally, they have provided 12 VOLANT BANNER/SILVER missions in support of the President and Vice-President, and have provided support to VOLANT OAK airlift missions in Central America. Air Force Reserve tankers support AMC channel missions, as well as special missions, and provide airlift for paratroopers and the European Tanker Task Force. Air Force Reserve fighters participated in RED FLAG and MAPLE LEAF exercises, both of which involve allied forces. During fiscal year 1992, Air Force Reserve pilots also supported Space Shuttle launches, Icelandic search and rescue, firefighting, aerial spray for mosquito and disease control, and support to the National Committee for Employer Support for the Guard and Reserve. Its units flew 482 hours in support of the Civil Air Patrol and JROTC, and participated in 554 state display events.

## Coast Guard Reserve

The Coast Guard Reserve participated in Operation SUMMERSTOCK, a major program where search and rescue stations in the Great Lakes area were augmented by Reservists during the busy recreational boating season. This support has been provided during the last fifteen years. The Coast Guard Reserve also participates in Operation TAKEOVER, assuming responsibility for three Active component units for up to two weeks, allowing assigned members to perform other duties, attend training, or take leave. They routinely support every significant maritime event.

During fiscal year 1992 these included the America's Cup races, space shuttle launches, and festivities associated with the Columbus Quincentenary (such as OPSAIL '92 in New York, and SAIL Boston '92). The 14 month planning for OPSAIL '92, SAIL Boston '92, and similar events in Puerto Rico involved 59 different Coast Guard Reserve commands and over 900 Reservists. These events were treated as an exercise, and provided excellent training for contingency scenarios. Reservists received training in administrative, logistical, personnel, equipment, facilities, security, and contingency planning, and interfacing with other agencies, both Department of Defense and civilian. In addition to planned augmentation and exercises, Coast Guard Reservists also became involved in operational missions through response to emergencies. They assisted with Alien Migrant Interdiction Operations, the cleanup of the Oakland fires, flood response in Texas, and numerous other maritime incidents. One new mission was providing support to pollution response exercises. It is anticipated that this environmental program will expand, as additional funds become available.

The Coast Guard Reserve demonstrated its multi-mission flexibility during the post-Hurricane Andrew humanitarian relief effort. Approximately 210 Coast Guard Reserve personnel were called to Active duty to support the surge requirements of the Active component. Members performed a variety of duties alongside their Active duty counterparts

in the affected areas of Florida and Louisiana, and at the Federal Emergency Management Agency Satellite Center in Ohio.

Coast Guard Reservists were also involved in humanitarian operations following Hurricane Iniki in Hawaii, Typhoon Omar in Guam, and other disasters throughout the United States. Community service is an ongoing area of emphasis. Examples include the Partnership in Education program, in which individual commands provide tutors, mentors, and administrative assistance to local schools, and the Inner City Marine Project, in which the Coast Guard provides guest speakers, field trips, audio visual materials, and presentations at Coast Guard bases to inner-city youth.

### **Fight Against Illegal Drugs**

Implementation of the President's National Drug Control Strategy became a Department of Defense mission in fiscal year 1990. It continued to be expanded during fiscal year 1992 and includes a significant role for the Reserve components. Members of the Reserve components continue to be actively engaged, in conjunction with state and federal agencies, in detecting and countering the production, trafficking, and use of illegal drugs. Such participation attests to the readiness, versatility, and cost effectiveness of using the Reserve components, even in non-traditional roles, to meet our national goals and objectives.

During fiscal year 1992, the Department of Defense, in support of the President's National Drug Control Strategy, continued to provide support to the Department of State and law enforcement agencies at all levels of government, for the eradication of illegal drugs and the reduction of the demand for those drugs. Since fiscal year 1989, Active and Reserve forces have established plans and developed liaisons with numerous national and local agencies, providing a basis for support of law enforcement agencies. While expanding primarily Active force assistance outside the continental United States, the Reserve components focused on attacking both the flow and sources of illegal drugs into and within this country. Working closely with the drug law enforcement agencies, the Reserve components operated within the entire breadth of detection and monitoring, including an open exchange of information.





The Army National Guard provided exemplary military support to drug law enforcement agencies within the United States. In FY89, the Army National Guard assisted in the seizure of \$1.7 million in cash. In 1992, that amount increased to \$62.7 million. This partnership assisted with the seizure of illicit drugs and arrests have significantly increased. The National Guard has a number of "Adding Value to America" programs that contribute to and benefit the youth of the nation and serve as the heart of their Drug Demand Reduction (renamed "Quality of Life" in fiscal year 1992) efforts. The youth programs include several national affiliations, including Girl/Boy Scouts, Campfire Girls/Boys, the 4-H Club, Boys/Girls Clubs, YWCA/YMCA, the U.S. Olympic Committee, and the Civil Air Patrol. More than 34 million youth are reached through these affiliations.

The National Guard also sponsors and participates in hundreds of youth-directed programs throughout the states and territories, including the youth drug demand reduction program which provides seed money and information to states for over 500 community based programs that reduce youth demand for drugs.

The National Guard has developed and operated the National Interagency Counterdrug Institute, providing capabilities training for National Guards and Active component

personnel, and federal, state, and local drug law enforcement personnel.

The "Challenge" program is directed at unemployed high school dropouts who volunteer for the program. Through an integrated network of community agencies, these youths receive evaluation and counseling and attend a six-month resident program emphasizing life-coping skills. They then return to their communities and begin the long-term counseling phase as they move into institutions of higher education or the world of work. The Youth Physical Fitness Program stresses individual skill development, both physical and mental, and recognizes high school scholar-athletes. Many additional state programs are supported including the New York National Guard Corps of Cadets and the Selfridge Air National Guard STARBASE program.

The Army Reserve has conducted 79 counterdrug missions using a \$6 million counterdrug budget. Though the USAR Drug Demand Reduction program was unfunded, approximately \$700,000 was reprogrammed from the counterdrug program to allow unit leaders to support 78 drug reduction community sponsored missions.

The Naval Reserve has dedicated over 355 ship steaming days to monitor and interdict drug trafficking in the Atlantic and Pacific, and to eradicate or reduce illegal drug use, while conducting 60 ship searches. Additionally, air support to the drug reduction program included 1,529 flight hours flown.

During fiscal year 1992, the Marine Reserve Force completed numerous missions in support of Joint Task Force Six and the counterdrug effort on the southwest border of the United States. Typical missions include listening/observation posts, engineering, ground/air reconnaissance, mobile training teams, intelligence support, and ground sensor support. Missions are usually 30 to 45 days in duration and involve an average of 45 personnel. From January to April 1992, the Marine Reserve Force deployed personnel and equipment from the Fourth Marine Aircraft Wing to Colombia to provide ground-based radar with a tactical air operations center. This deployment was in support of Operation SUPPORT JUSTICE III, a U.S. Southern Command regionally-coordinated, host-nation-

conducted, air and ground operation. Counterdrug expenditures of \$3.9 million include operations, personnel, and equipment costs.

The Air National Guard provided approximately 14,700 officer and 176,250 airman workdays in support of the Air National Guard Counterdrug State Plans during fiscal year 1992. The funding support of the Counterdrug program is \$66.8 million, divided between personnel, operations and procurement. Through their assistance, the Air National Guard has been credited with the seizure of over 57,568 pounds of cocaine, 59,337 pounds of marijuana, 335 pounds of heroin, and 613 weapons. The Air National Guard supported operations resulted in 3,919 arrests.

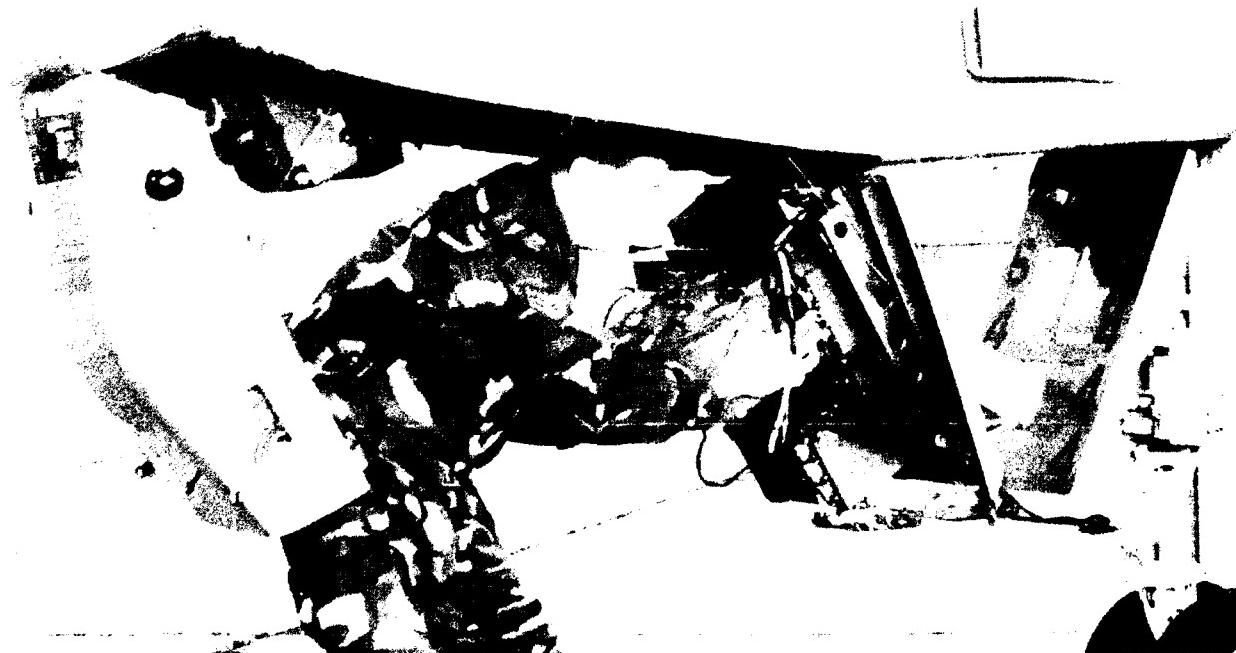
The Puerto Rico Air National Guard Drug Interdiction Operations Center has been credited with seizures of an additional 14,000 pounds of cocaine, 10,000 pounds of marijuana and 50 arrests. The Air National Guard continues their support of USCINCLANT with one detachment of air defense fighters and three counterdrug radar sites within the Caribbean and Central America area of operations.

The deployment of Air National Guard Air Defense assets remains one of the most cost effective counterdrug programs within the Air Force. The return on investment exceeds 1,500

percent for the amount of seizures that were credited to the ANG program at Howard AFB versus the cost of operations of approximately \$6 million per year. This counterdrug mission is a natural extension of the alert mission performed every day at their home stations in support of CINC NORAD. The Air National Guard radar deployments monitor the airways 24 hours a day, 365 days a year, using air control unit personnel on two-week rotations. Currently, the Air National Guard is also providing two counterdrug radar deployments along the Southwest border of the United States and at other overseas locations.

The National Guard Bureau and the United States Customs Service (USCS) were tasked by Congress to do a feasibility study of the T-47 aircraft (CESSNA CITATION II) to be used to support the war on drugs. Test flights have been conducted using both Air National Guard and USCS flight crews and the information gathered was correlated into a final report to Congress. Congressional language directs the Department of Defense and the Customs Service to reach an agreement and to make the aircraft operational for the counterdrug mission as soon as possible.

The Air Force Reserve supported counterdrug law enforcement agencies with 126 missions consisting of transportation, marijuana eradication, observation post/listening post, aircraft security, forward looking infra-red observation missions, mobile



training teams to teach small unit tactics, intelligence analysis, linguists, maritime patrol, and civil engineering support. They formed the Directorate of Counterdrug Support at Air Force Reserve headquarters, as well as the Air Force Reserve Demand Reduction Working Group. The Air Force Reserve Band performs concerts at high schools, directing an anti-drug message at the youth. The Air Force Reserve received over \$3 million in funds for support in the fight against illegal drugs.

Enforcement of laws and treaties (ELT) and drug interdiction operations are ongoing Active Coast Guard mission areas. Reserve personnel who augment/train at Active component units which are involved in law enforcement participate in ELT. During fiscal year 1992, the Coast Guard Reserve provided approximately 6,750 days of ADT and 4,630 days of IDT support to the Active component in support of law enforcement.

### **Enhanced Roles for Reserve Components**

The domestic mission areas are not new to the Reserve components. It may be the appropriate time to acknowledge these missions, recognize that the National Guard and Reserve are performing these missions in addition to their wartime roles, and formally assign these roles and missions to the Reserve components. Many recommendations are being made which would encourage this direct military support towards domestic nation building, emergency management, and humanitarian efforts.

Reserve components can assume additional missions in the area of forward presence, nation building, and domestic assistance. Their units are an excellent source of intermittent forward presence as the Active component draws down. This effect has been clearly demonstrated by the roles of the Army National Guard and the Army Reserve at the Equipment Maintenance Center, Europe. Both the Army National Guard and the Army Reserve could assume increased roles in the retrograde and repair of European theater war reserves. With the downsizing of the force in Europe and the evacuation of equipment to the United States, transportation units and maintenance units could evacuate and repair much needed equipment for turn-in into the wholesale supply system. The resultant

redistributed equipment will greatly enhance Total Force readiness, while the process would improve the individual and unit skills of the forces involved in the retrograde and repair operation. Reserve component units are also an effective instrument of national policy in nation assistance as demonstrated in Central America, South America, and Africa.

*The Board recommends that additional or enhanced mission assignments be considered for the Reserve components, including continued involvement in drug interdiction and demand reduction programs, and increased involvement in domestic relief missions.*

The Army National Guard and Army Reserve are given missions under the Army's CAPSTONE program. This program aligns Army Active and Reserve component units with their wartime gaining commands, and is currently under a comprehensive revision. The effort is being facilitated by a simultaneous General Accounting Office (GAO) review of the program. The program also allows Reserve component units to focus training on wartime tasks for regions of the world where they are programmed to deploy upon mobilization.

*The Board recommends support for increased involvement of Reserve component units and personnel in medical, civil affairs, and engineering activities in nation-building programs.*

*The Board also recommends a program to provide additional Active Guard and Reserve (AGR) personnel to the United States European Command staff to provide a more effective interface with Reserve component training activities.*

*Additionally, the Board recommends increased full-time Reserve component programs, similar to the Army National Guard's aviation maintenance program (AVCRAID) and the Equipment Maintenance Center, Europe, be continued and expanded in the international theater of operations.*

*The Board also recommends that Reserve sponsored and coordinated youth education programs be supported to the maximum extent possible.* 



# Personnel 4



*"Although we don't know what exactly will happen in the next few years, we have to remember that it isn't the hi-tech weapons that win the wars, it's the men and women out in the snow, mud, and sand that are fighting that win the battles."*

*General Gordon R. Sullivan  
Chief of Staff, United States Army*

## **General**

As an integral part of the Total Force, the Reserve components must be manned with trained personnel in sufficient numbers to provide the required level of readiness. Manpower is a key to readiness.

As an all-volunteer force, the Reserve components must have adequate recruiting and retention incentives to attract and retain quality personnel. The Reserve components are also affected by changing demographics, which makes recruiting more difficult in some geographical areas than in others, and may ultimately require units to be moved, or flexible training programs to be developed, to allow units to be fully manned.

Each of the Reserve components ended the year at, or near, 100 percent of their overall Selected Reserve programmed end strength. However, there continues to be significant shortages in various grades and specialties. Some are partially offset by over-manning in others. It should also be noted that current funding levels prevent the Reserve components from filling to wartime requirements, and, in the case of the Coast Guard Reserve, to authorized peacetime levels.

The attrition of trained personnel from the Selected Reserve requires continuing attention, even though a large percentage of these personnel go from units into the Individual Ready Reserve (IRR), on active duty, or to other Reserve components. Replacing Selected Reservists who depart prior to completion of their term of service is costly and time-consuming. Retention of trained personnel should be a continuing priority.

Adequate numbers of Full-Time Support personnel are the key to satisfying Reserve component administrative requirements, ensuring adequate maintenance of equipment, and to improving training and mobilization readiness. Full-Time Support is funded at, or near, requirements in all Reserve components except the Army National Guard and the Army Reserve.

## **Authorized End Strengths**

Selected Reserve end strengths for each of the Reserve components, except the Air

National Guard, were reduced in fiscal year 1992 and some are projected for further reductions in fiscal year 1993.

Table 4-1 compares authorized end strengths for fiscal year 1992 and fiscal year 1993.

Army National Guard fiscal year 1993 paid drill strength was reduced from 426,528 to 422,725, a reduction of 3,803. Paid drill strength for the Army Reserve was decreased from 302,850 to 279,615, a reduction of 23,235. Readiness of the Army National Guard and the Army Reserve will be adversely impacted if the planned force structure reductions are not applied simultaneously with reductions in drill strength.

Selected Reserve strength for the Naval Reserve was reduced from 142,611 to 133,675, a reduction of 8,936. Approximately 3,800 of this reduction is linked to unit deactivations. The remaining reductions involve positions augmenting Active component activities where capability was considered excess due to the reduced threat.

The Selected Marine Corps Reserve end strength authorization was increased from 42,256 to 42,315, an increase of 59.

Air National Guard end strength increased from 119,083 to 119,300, an increase of 217 (one percent). The increase was necessitated by unit conversions.

The Air Force Reserve authorized end strength decreased from 85,591 in fiscal year 1991 to 81,874 in fiscal year 1992; a reduction of 3,717. Only a small amount of these authorizations were lost from unit programs. The remaining reductions came from the Air Force Reserve's IMA program, which was funded at 60 percent of requirements. The authorized end strength for fiscal year 1993 restored the authorization for 426 spaces.

The Coast Guard Reserve was authorized an end strength of 15,150, which, if funded, would meet mobilization requirements. However, budgeted paid drill strength was reduced from 12,000 in fiscal year 1991 to 11,500 in fiscal year 1992. Budgeted paid drill strength was further reduced to 10,500 for fiscal year 1993. These reductions are the result of the level of appropriations enacted for the

**Table 4-1**  
**SELECTED RESERVE AUTHORIZED END STRENGTHS**

	FY92 <u>Authorized</u>	FY93 <u>Authorized</u>	<u>Change</u>
Army National Guard	426,528	422,725	(3,803)
Army Reserve	302,850	279,615	(23,235)
Naval Reserve	142,611	133,675	(8,936)
Marine Corps Reserve	42,256	42,315	59
Air National Guard	119,083	119,300	217
Air Force Reserve	81,874	82,300	426
Coast Guard Reserve	15,150	15,150	0
<b>Total</b>	1,130,352	1,095,080	(35,272)

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the FY93 Defense Authorization Act.

Data as of September 30, 1992.

Department of Transportation, and they significantly reduce the ability of the Coast Guard Reserve to achieve its required mobilization end strength.

*The Board recommends that adequate funding be provided for the Coast Guard Reserve to fill all of its Congressionally-authorized positions.*

## Recruiting Results-FY92

An effective recruiting program is necessary to maintain a balanced force. Even in times of force reductions, a steady flow of recruits is needed to fill critical skills and to maintain an appropriate grade distribution.

Each of the Reserve components was able to fill the majority of their Selected Reserve enlisted positions and ended the year at, or near, 100 percent execution of their programmed end strength. However, there were overages in some categories (officer, warrant officer, and enlisted) which offset shortages in others. Having achieved their overall recruiting objectives, the Reserve

components are now concentrating to a greater degree on achieving an appropriate grade and skill match for each of their Selected Reserve unit positions.

## Reenlistment Rates

Readiness is enhanced by the ability of the Reserve components to retain highly-qualified personnel. An effective retention program reduces the costs of recruiting and training replacements, who may be non-deployable while they are in training. Retention also helps the Reserve components achieve and maintain their authorized manning levels.

Higher than usual retention rates occurred during, and for a few months after, Operations DESERT SHIELD/STORM due to "stop-loss" provisions. While it appears that retention trends are returning to prior levels, continued emphasis is needed on both retention and the effective utilization of reenlistment bonus programs.

Fiscal year 1992 reenlistment rates are shown in Table 4-2.

**Table 4-2**  
**REENLISTMENT RATES**

	First Term			Beyond First Term		
	FY91	FY92	Change	FY91	FY92	Change
Army National Guard	63%	53%	-10%	77%	69%	-8%
Army Reserve	84%	38%	4%	78%	83%	5%
Naval Reserve	88%	79%	-9%	92%	88%	-4%
Marine Corps Reserve	75%	83%	8%	95%	90%	-5%
Air National Guard	82%	87%	5%	97%	96%	-1%
Air Force Reserve	97%	86%	-11%	92%	90%	-2%
Coast Guard Reserve <sup>1</sup>	N/A	N/A	N/A	N/A	N/A	N/A

Note:

1. The overall FY92 reenlistment rate for the Coast Guard Reserve is 79 percent; breakdown not available.

Source: The Reserve components.

Data as of September 30, 1992.

## Medical Strengths

Tables 4-3 lists Selected Reserve medical strengths by specialty. Table 4-4 shows the potential capability of the Individual Ready Reserve and the Inactive National Guard to satisfy some of the critical shortages.

Operations DESERT SHIELD/STORM and PROVIDE COMFORT reemphasized the importance of having adequate numbers of qualified Reserve component health care personnel in the Selected Reserve. Substantial numbers of physicians, nurses, and other Reserve component health care personnel volunteered or were called to active duty to support each of these operations.

Medical planners are cautiously optimistic about nurse recruiting, based upon the continued strength of nurse accessions across all Services. However, physician strength is eroding due to a decline in new accessions. According to field recruiters, the most significant factor causing this decline is physician concerns over income loss if called to active duty.

The Army National Guard has filled over 59 percent of its authorized physician positions. It is short 612 physicians. There are significant shortages of anesthesiologists, general surgeons, and orthopedic surgeons. Nurse strength is 176 short (88 percent fill rate) of

budgeted authorizations; significant shortages of nurse anesthetists and operating room nurses remain. Total enlisted medical strength exceeds budgeted authorizations. However, licensed practical nurse positions are filled to only 54 percent, a shortage of 797.

The Army Reserve physician fill rate dropped from 94 percent in fiscal year 1991 to 76 percent in fiscal year 1992. The Army Reserve has filled 97 percent of authorized nurse positions through intensive recruiting and increased availability of incentives. The major shortages are orthopedic surgeon (51 percent fill), nurse anesthetist (59 percent fill) and licensed practical nurse (73 percent fill).

The National Army Medical Department Augmentation Detachment (NAAD) provides a flexible training alternative for Army Reserve physicians and nurses in critical specialties (general surgeons, orthopedic surgeons, thoracic surgeons, and nurse anesthetists) who otherwise would probably not have joined or would have left the Selected Reserve. The current strength of the NAAD is 562 physicians and 594 nurses as of September 30, 1992. A total of 178 physicians and 182 nurses were ordered to active duty from the NAAD for Operations DESERT SHIELD/STORM. Not only did NAAD personnel deploy with their assigned units, but 84 were cross-leveled to meet shortages in other units scheduled for mobilization.

**Table 4-3**  
**SELECTED RESERVE UNIT MEDICAL PERSONNEL STRENGTHS BY SPECIALTY**

	Budgeted	Assigned	Fill Rate		Budgeted	Assigned	Fill Rate				
<b>Army National Guard</b>											
<b>Physicians<sup>1</sup></b>											
General Surgeon	233	96	41%	Air National Guard							
Anesthesiologist	35	31	89%	Physicians							
Orthopedic Surgeon	79	25	32%	General Surgeon	N/A	N/A	N/A				
All Other Physicians	1,138	421	37%	Anesthesiologist	N/A	N/A	N/A				
Total Physicians	1,485	873	59%	Orthopedic Surgeon	N/A	N/A	N/A				
<b>Nurse Corps</b>											
Nurse Anesthetist	188	66	35%	All Other Physicians	607	474	78%				
Operating Room Nurse	225	168	75%	Total Physicians	607	474	78%				
All Other Nurses	1,006	1,006	100%	<b>Nurse Corps</b>							
Total Nurses	1,419	1,243	88%	Nurse Anesthetist	N/A	N/A	N/A				
<b>Enlisted</b>				Operating Room Nurse	N/A	N/A	N/A				
LPN	1,721	924	54%	All Other Nurses	903	801	89%				
All Other Enlisted	19,079	20,541	108%	Total Nurses	903	801	89%				
Total Enlisted	20,800	21,565	104%	<b>Enlisted</b>							
<b>Army Reserve</b>											
<b>Physicians<sup>1</sup></b>											
General Surgeon	604	490	81%	Air Force Reserve							
Anesthesiologist	191	293	153%	Physicians							
Orthopedic Surgeon	356	181	51%	General Surgeon	100	70	70%				
All Other Physicians	2,356	1,701	72%	Anesthesiologist	24	25	104%				
Total Physicians	3,507	2,665	76%	Orthopedic Surgeon	52	30	58%				
<b>Nurse Corps</b>											
Nurse Anesthetist	795	473	53%	All Other Physicians	662	524	79%				
Operating Room Nurse	926	1,084	117%	Total Physicians	838	649	77%				
All Other Nurses	6,388	6,277	98%	<b>Nurse Corps</b>							
Total Nurses	8,109	7,834	97%	Nurse Anesthetist	110	93	85%				
<b>Enlisted</b>				Operating Room Nurse	128	128	100%				
LPN <sup>2</sup>	7,089	5,140	73%	All Other Nurses	2,165	2,074	96%				
All Other Enlisted	25,269	28,458	113%	Total Nurses	2,403	2,295	96%				
Total Enlisted	32,358	33,598	104%	<b>Enlisted</b>							
<b>Naval Reserve<sup>3</sup></b>											
<b>Physicians</b>											
General Surgeon	142	133	94%	Physician Assistant (CWO)	32	12	38%				
Anesthesiologist	122	110	90%	Medical Administration	9	9	100%				
Orthopedic Surgeon	92	73	79%	Enlisted	235	158	67%				
All Other Physicians	1,307	1,285	98%	<b>Coast Guard Reserve<sup>4</sup></b>							
Total Physicians	1,663	1,601	96%								
<b>Nurse Corps</b>											
Nurse Anesthetist	95	132	139%								
Operating Room Nurse	237	266	112%								
All Other Nurses	2,039	1,914	94%								
Total Nurses	2,371	2,312	98%								
<b>Enlisted</b>											
LPN	N/A	N/A	N/A								
All Other Enlisted	13,955	10,936	78%								
Total Enlisted	13,955	10,936	78%								

## Notes:

1. Includes residents who are not fully qualified in their specialty.
2. All assigned personnel are not MOS qualified.
3. The Marine Corps Reserve receives all its medical support from the Navy and the Naval Reserve.
4. US Public Health Service is the Coast Guard's main source of physicians, as well as the Military Services.

Source: The Reserve Common Components Personnel Data System (RCCPDS).

Data as of September 30, 1992.

The Naval Reserve has been successful in filling 96 percent of its physician positions and 98 percent of its nurse positions and has reduced the number of specialties with critical shortages to one: orthopedic surgeon. Over 78 percent of Naval Reserve enlisted health care positions are filled.

Marine Corps medical/dental support is provided by the Navy and the Naval Reserve.

The Air National Guard has an overall fill rate of 78 percent for physicians, 89 percent for nurses, and 93 percent for enlisted health care personnel.

The Air Force Reserve has an overall fill rate of 77 percent for physicians, 96 percent for nurses, and 99 percent for enlisted health care personnel.

Coast Guard Reserve medical personnel consist of commissioned warrant officers who serve as physicians assistants and medical administrators, and enlisted personnel who serve as hospital corpsmen.

*The Board recommends that the recruiting and retention of health care professionals be closely monitored to facilitate prompt corrective action, if required, in response to any adverse effects resulting from Operations DESERT SHIELD/STORM.*

## Physician/Nurse Attrition

Several programs were undertaken during fiscal year 1992 to reduce the attrition of physicians and nurses from the Army National Guard. Position descriptions of Army Medical Department (AMEDD) recruiters were rewritten to include retention. Retention was added as a subject in the AMEDD recruiting course. The Army National Guard Surgeon's Office has written an orientation guide for AMEDD officers to complement state sponsorship programs. A reporting system tracks the reason why every health care professional leaves the Army National Guard.

The Army National Guard attrition rate for physicians for fiscal year 1992 was approximately 12 percent, and the Army Nurse Corps officers was approximately 13 percent. The attrition rate for Medical Corps officers has been fairly constant for the last several years.

Despite low losses during fiscal year 1992, only a modest net gain in AMEDD strength has been realized. Measures taken to reduce shortages in critical specialties include assigning recruiter missions by specialty, developing new advertising materials and marketing strategies, and revising the program of instruction for the recruiting course to emphasize targeting specific markets/specialties.

Although Naval Reserve medical/nurse corps attrition (18 percent and 15 percent respectively) was higher in fiscal year 1992 than fiscal year 1991, some increases were the result of personnel actions (retirements, transfers, etc.) which were put on hold as a result of Operations DESERT SHIELD/STORM.

The Air National Guard initiated several programs during fiscal year 1992 to reduce the attrition of physicians and nurses: a Business and Practice Care Readiness Planning Handbook was developed to detail civilian business actions necessary to achieve mobilization readiness; recruiter positions were added at the Air National Guard Readiness Center and several key locations; and utilization of recruiting incentive programs was increased. As a result of these programs, all aeromedical evacuation and hospital/clinic manning in the Air National Guard will be increased to 100 percent during fiscal year 1993.



**Table 4-4**  
**IRR/ING STRENGTH IN CRITICAL MEDICAL SPECIALTIES**

	<u>Army</u>	<u>Navy</u>	<u>Air Force</u>
General Surgeon	395	54	38
Anesthesiologist	235	42	12
Orthopedic Surgeon	174	36	16
Nurse Anesthetist	223	27	39
Operating Room Nurse	431	43	80
Licensed Practical Nurse	1,636	N/A	N/A

Source: The Reserve components.  
Data as of September 30, 1992.

The Air Force Reserve experienced a decrease in overall physician manning from 91 percent to 80 percent and nurse manning from 102 percent to 97 percent. These decreases were partially offset by a 24 percent increase of physicians and 28 percent increase of nurses in the IRR. The Selected Reserve Recruitment Bonus Test Program for critical nurse and physician specialties continues to have considerable impact in reducing shortages in these areas. The Air Force Reserve has started a program of entrance and exit questionnaires to assess why individuals join and leave.

The Coast Guard has no assigned physicians or nurses. The U.S. Public Health Service provides these specialists to the Coast Guard.

*The Board recommends that the attrition rates of physicians, nurses, and other health care personnel be closely monitored to maintain both overall strength and strength in critical specialties.*

### **Medical Recruitment Incentive Programs**

Congress has enacted two programs to attract and retain health professionals: the Health Professional Loan Repayment Program (HPLRP) and the Specialized Training and Assistance Program (STRAP). In 1989, Congress also authorized a Selected Reserve Recruitment Bonus Test Program.

The HPLRP provides reimbursement for each year of satisfactory Reserve service.

Physicians and nurses in critical shortage specialties who have qualifying education loans can have up to \$3,000 per year, and up to \$20,000 total of their loans repaid to lenders. This program has been effective mainly in recruiting nurses, due to the relatively low loan maximums. During fiscal year 1992, 505 individuals enrolled in this program, for a cumulative total of 1,123 participants.

STRAP assists in recruiting student physicians and nurses who are training in critically-short wartime specialties. STRAP stipends range from \$100-\$762 per month, depending upon the status of the recipient and Service policy. In fiscal year 1992, STRAP attracted 514 new participants, for a program total of 1,405. While physician participation is down significantly in comparison to pre-DESERT STORM levels, nurse applications have increased.

Another program which has increased the number of critical health care specialists in the Reserve components is the Selected Reserve Recruitment Bonus Test Program. It provides a recruitment bonus for nurses and for physicians in certain specialties. It has been tested for the past three years with encouraging results.

The Selected Reserve Recruitment Bonus Test Program offers "up-front" bonus payments of up to \$10,000 per year to physicians and nurses in critical shortage specialties for a contractual commitment in the Selected Reserve of up to three years. In the region where the bonus was offered, there was a

marked increase in accessions, in comparison to the areas where the bonus was not available. The Assistant Secretary of Defense for Health Affairs will be reporting test results and recommendations to Congress in fiscal year 1993.

Congress has directed the Selective Service System to develop a standby program for the registration and classification of health care professionals. Such a program would only be implemented after the President declares a national emergency and after Congress passes legislation providing specific registration authority. The Selective Service System has developed an operational concept, functional description, and automation requirements for the program.

*The Board recommends continued support of recruiting and retention incentive programs for the Reserve components, especially those which target health care professionals in critical shortage specialties.*

## Attrition

No significant differences in attrition have been noted between units which were mobilized for Operations DESERT SHIELD/STORM and those not mobilized. In some instances, fiscal year 1992 losses are less than fiscal year 1991. Improvements in training, pay systems, incentives, advancement opportunities, and reenlistment bonuses have been helpful in reducing attrition.

There are increasing concerns about the possibility of completing a career in the Reserve components and ultimately qualifying for a Reserve retirement due to the uncertainties of downsizing.

Attrition contributes to a degradation of personnel readiness because it represents a loss of trained personnel from units. With a high percentage of personnel either newly trained or still in training, a unit cannot achieve a high level of readiness. However, individuals who leave the Selected Reserve with a remaining military service obligation continue to serve as members of the Individual Ready Reserve.

Fiscal year 1992 attrition rates for grades E1 through E5 and for grades O1 through O3 were as follows:

	<b>E1-E5</b>	<b>O1-O3</b>
ARNG	13%	14%
USAR*	34%	16%
USNR	22%	18%
USMCR	20%	12%
ANG	11%	5%
USAFR	16%	16%
USCGR	17%	5%

\*Includes transfers between units.

Major contributors to attrition in the Army National Guard are: job conflicts, dissatisfaction with training, dissatisfaction with enlistment terms, and delayed receipt of Reserve pay.

According to a recent survey, the most significant reasons for attrition in Army Reserve troop program units for soldiers E1 - E5 were: not being promoted, not being treated respectfully and fairly, pay problems, poor NCO leadership, lack of credit for doing a good job; for officers O1 - O3: completion of obligation, distance from unit, employer conflicts, transfer to the Army National Guard, and lack of promotion. During fiscal year 1992, no involuntary separations occurred because of the Reserve component drawdown.

The Army Reserve has taken positive action to improve retention. It has developed a new video/guidebook on retention for use by all leaders. It is accessing a higher percentage of personnel who are qualified in their duty position; these soldiers historically have a higher retention rate. It has placed increased leadership emphasis on meeting soldier needs for training, recognition, and involvement in meaningful work.

The top five causes of attrition from the Naval Reserve were: pay problems, family and job conflicts, involuntary separation (unsatisfactory performance, medical disqualification, tenure, etc.), lack of meaningful training, and no longer need the additional income. Naval Reserve data bases do not exist that separate the reasons for officer and enlisted attrition. The overall reasons listed apply to all junior personnel. Historically, E1 - E5 attrition has remained at about the 20 percent level, which is considered acceptable.

Career counseling programs ensure that all personnel are counseled at various periods as they approach the time for reenlistment. The

Naval Reserve has established an electronic Notice of Basic Eligibility to reduce errors which have caused pay problems with the Montgomery G.I. Bill. The Reserve Unit Incentive Pay Test, established by Congress, is being tested for enlisted members of Naval Reserve Force ships, and is showing some promise. Additionally, bonuses are provided for those ratings which are critically undermanned.

The top five reasons for attrition of Selected Marine Corps Reservists were: geographic considerations, economic factors, conflict with civilian job, job satisfaction, and slow rank progression.

The Marine Corps Reserve considers a 20 percent attrition rate acceptable for privates through sergeants (pay grades E1 - E5) and 15 percent for lieutenants (pay grades O1 - O2). Several factors have significantly reduced attrition over the past four years. These include: realistic training, recruiter sponsorship of prior service personnel, bonuses, and increased command concern for individuals.

The Air National Guard views 10 percent as an acceptable, over all, attrition rate. The top five causes of attrition were: retirement (both voluntary and involuntary), expiration of term of service, changed residence/moved from state, enlisted in another service/component, and resignation.

The top five causes of attrition of Selected Reservists in the Air Force Reserve were: voluntary reassignment, job conflict, unsatisfactory participation, expiration of term of service with a remaining military service obligation, and change of residence.

The following were the most significant reasons for attrition in the Coast Guard Reserve: family conflicts, scheduling conflicts with civilian job, and limited training opportunities caused by inadequate funding.

A Quality Action Team recently reviewed an important Coast Guard Reserve accession program. Several of the recommendations of this study are designed to reduce attrition.

*The Board recommends that retention continue to receive priority attention as a means of reducing training costs and increasing readiness.*

## Personnel Shortages

Each of the Reserve components are experiencing shortages of 10 percent or more in various officer, warrant officer, and enlisted skills. Personnel shortages caused many units to be below minimum readiness standards or necessitated extensive cross-leveling to meet mobilization requirements for Operations DESERT SHIELD/STORM.

Skill shortages were further aggravated in some Reserve components by the lack of a Non-Deployable Personnel Account, which would have provided separate accountability for trainees and students who are currently assigned to unit positions. Unit manning documents would then reflect only deployable personnel.

Each Reserve component was asked to list critical personnel shortages of over 10 percent and to discuss actions being taken to reduce these shortages.

The Army National Guard has 125 enlisted specialties with less than 90 percent fill. This is 36 percent of the 351 military occupational specialties utilized by the Army National Guard. Recruiting and retention managers are focusing their efforts on identifying prior service



members with these skills and on recruiting non-prior service members whose test scores indicate a strong aptitude for these specialties. There is a continuing shortage of warrant officers, both in the aggregate and in critical specialties. Recruiting efforts are being increased to bring more applicants into the pipeline.

The Army Reserve has 23 officer specialties with shortages of over 10 percent. The majority of these shortages are in chaplain, chemical, and medical skills. There is a severe shortage of warrant officers in the Army Reserve. There are 46 warrant officer specialties with shortages of over 10 percent. Continuing efforts are underway to reduce these shortages. The Army Reserve has 114 enlisted specialties with a shortage of over 10 percent. Unit vacancies have been prioritized in an effort to reduce these shortages.

The Naval Reserve has shortages in 10 officer designators, most of which are in hard to fill medical specialties. Critical shortages also exist in 29 chief warrant officer and in 58 of 102 enlisted occupation fields. Actions being taken by the Naval Reserve to reduce enlisted shortages include targeting non-prior service accessions to ratings with fewer prior service personnel, improved training methods/opportunities, and waiving tenure restrictions for severely undermanned ratings. Critical enlisted requirements are generally eligible for enlistment bonuses and reenlistment incentive programs. Recruiting is targeted toward undermanned occupational specialties.

The Marine Corps Reserve has eight officer, four warrant officer, and 41 enlisted MOSs which have shortages of over 10 percent. These shortages degrade readiness.

The Air National Guard has 37 officer and 48 enlisted specialties with less than a 90 percent fill rate. Units are continuing to target their enlisted recruiting efforts to fill critical shortages.

Examples of the 20 Air Force Reserve officer career fields which have shortages of over 10 percent include: biomedical science, helicopter pilot, information management, intelligence, legal, navigator, and physician. There are 12 enlisted career fields with less than a 90 percent fill rate.

The Coast Guard Reserve has five officer, two warrant officer, and nine enlisted career fields with shortages of over 10 percent. Many of these ratings and skills are also inadequately manned within the Active component.

*The Board recommends that continuing emphasis be placed on reducing critical skill shortages in each of the Reserve components.*

*The Board recommends that recruiting and retention incentives be targeted on skill shortage areas.*

## Officer Shortages

Reserve component officer shortages, by pay grade, are listed in table 4-5. The Individual Ready Reserve and Inactive National Guard strengths in each category are also shown in the shaded area.

The shortage of 3,700 Army National Guard captains degrades leadership experience in troop program units, as does the shortage of 949 majors. Likewise, the shortage of 5,461 captains and 2,357 majors in the Army Reserve has a similar impact.

It should be noted that many Army National Guard and Army Reserve officers enter directly from commissioning programs into Reserve component lieutenant (01/02) positions, while the other services draw primarily from officers leaving the Active component. In those instances where positions must be filled by an officer of a lower grade, readiness is typically reduced due to the differential in training and experience.

The shortage of captains (pay grade 03) in Army National Guard and Army Reserve troop program units has caused lieutenants (pay grades 01 and 02) to be assigned to fill otherwise empty captain positions, notwithstanding the availability of large numbers of captains in the IRR. In those situations where lieutenants perform captain duties, they do so without the benefit of the experience and training that they would have gained with the additional developmental assignments of a more senior officer. Also, some lieutenants may not have had an opportunity to attend the Officer Advanced Course, which is designed to prepare them to fill captain positions.

**Table 4-5**  
**OFFICER SHORTAGES BY PAY GRADE IN SELECTED RESERVE UNITS**  
**VS. IRR ASSETS**

<u>Grade</u>	<u>Authorized</u>	<u>Assigned</u>	<u>Over/(Short)</u>	<u>Fill Rate</u>	<u>IRR/ING</u>
<b>Army National Guard</b>					
01/02	12,513	16,399	3,886	131.1%	252
03	14,084	10,384	(3,700)	73.7%	224
04	7,303	6,354	(949)	87.0%	49
05	3,333	3,480	147	104.4%	17
06	1,039	1,401	362	134.8%	8
Total	38,272	38,018	(254)	99.3%	550
<b>Army Reserve</b>					
01/02	8,340	11,723	3,383	140.6%	22,989
03	16,256	10,795	(5,461)	66.4%	18,487
04	11,225	8,868	(2,357)	79.0%	7,977
05	5,905	6,459	554	109.4%	4,165
06	1,366	2,190	824	160.3%	1,220
Total	43,092	40,035	(3,057)	92.9%	54,838
<b>Naval Reserve</b>					
01/02	3,967	1,372	(2,595)	34.6%	3,938
03	8,563	8,166	(397)	95.4%	9,008
04	7,214	8,553	1,339	118.6%	4,745
05	3,940	4,312	372	109.4%	4,199
06	1,119	1,722	603	153.9%	2,702
Total	24,803	24,125	(678)	97.3%	24,592
<b>Marine Corps Reserve</b>					
01/02	818	72	(746)	8.8%	555
03	699	1,063	364	152.1%	2,553
04	413	582	169	140.9%	769
05	185	268	83	144.9%	562
06	49	51	2	104.1%	288
Total	2,164	2,036	(128)	94.1%	4,727
<b>Air National Guard</b>					
01/02	N/A	N/A	N/A	N/A	N/A
03	5,051	4,920	(131)	97.4%	N/A
04	5,127	4,750	(377)	92.6%	N/A
05	3,764	3,573	(191)	94.9%	N/A
06	633	620	(13)	97.9%	N/A
Total	14,575	13,863	(712)	95.1%	N/A
<b>Air Force Reserve</b>					
01/02	909	1,335	426	146.9%	5,944
03	4,183	3,109	(1,074)	74.3%	6,418
04	2,379	2,687	308	112.9%	1,489
05	1,593	1,543	(50)	96.9%	599
06	329	370	41	112.5%	137
Total	9,393	9,044	(349)	96.3%	14,587
<b>Coast Guard Reserve</b>					
01/02	305	199	(106)	65.2%	31
03	488	451	(37)	92.4%	118
04	296	411	115	138.9%	76
05	137	130	(7)	94.9%	73
06	27	28	1	103.7%	40
Total	1,253	1,219	(34)	97.3%	338

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.  
Data as of September 30, 1992.

Army Reserve policies permit accessing lieutenants (01/02s) to offset the shortage of captains (03s). However, the excess of lieutenants adversely impacts unit readiness.

The Army Reserve significantly reduced grade imbalances in the grades of lieutenant colonel (05) and colonel (06) during fiscal year 1992.

The Naval Reserve initiated strict billet substitution criteria and grade ceilings for captains (06) and commanders (05) in Selected Reserve units in fiscal year 1992. Junior officer (01-04) recruiting was increased to achieve a structure that is consistent with requirements.

During fiscal year 1992, the Marine Corps Prior Service Recruiting Service made a concentrated effort to increase the number of officers, particularly company grade officers (lieutenants (01/02) and captains (03)), in the Selected Marine Corps Reserve. The results were positive. However, due to the initial active duty requirement of at least three years for commissioned officers, there will continue to be a shortage of company grade officers. Notwithstanding, the Marine Corps considers the experience level achieved by requiring all officers to serve an initial tour on active duty outweighs the shortage of junior officers.

The Air National Guard focuses on assigning and retaining unit members with the right grade and skill and has achieved fill rates of over 92 percent in each pay grade. However, there is an overall shortage of 712 officers.

The Air Force Reserve has a shortage of 1,074 captains (03) in Selected Reserve units.

This shortage is partially offset by an average of 308 majors (04).

Coast Guard Reserve grade imbalances are controlled by the promotion process to the commander and captain (05/06) level and by an annual retention board for all captains. Junior officer grades (01-04) are managed by adjusting accessions in the Ready Reserve direct commissioning process.

*The Board recommends that special attention be placed on filling officer positions with qualified individuals of the appropriate grade.*

## Warrant Officer Shortages

Warrant officer shortages in the Army National Guard and Army Reserve continue to have a negative impact on unit readiness. Full implementation of the 13 Warrant Officer Leadership Development Plan initiatives beginning in fiscal year 1993 and currently scheduled for completion in fiscal year 1994 are expected to alleviate most of the shortages.

The major shortages in the Army National Guard are within the warrant officer technical service branches. Many of these shortages occur in units with only one or two of these positions, which adversely impacts readiness.

The other Reserve components are generally able to fill their warrant officer positions, do not have a significant warrant officer shortage, or do not have a warrant officer authorization.

Selected Reserve warrant officer shortages are listed in Table 4-6.

Table 4-6  
WARRANT OFFICER SHORTAGES<sup>1</sup> (SELECTED RESERVE)

	WO 1/2	WO 3/4/5	Total
Army National Guard	1,860	585	2,445
Army Reserve	1,019	549	1,568
Naval Reserve	28	41	69
Marine Corps Reserve	57	2	59
Coast Guard Reserve <sup>2</sup>			23

### Notes:

1. Neither the Air National Guard nor the Air Force Reserve have warrant officers.
2. Breakdown by paygrade not available.

Source: The Reserve components.

Data as of September 30, 1992.

## Active Duty Experience Levels

Table 4-7 shows the percent of Selected Reserve unit personnel with a least two years of Active component experience, by Service.

## Civilian Education Levels

The quality of Reserve component personnel has never been higher. Civilian education has a marked impact on trainability, higher retention rates, and readiness. Each Reserve component was asked to provide the percent of enlisted soldiers in the Selected Reserve who have a high school diploma or GED and the percent of Selected Reserve officers in grades O1-O3 who have a college degree. The results are shown below.

	<u>Enlisted % with HS Diploma/GED</u>	<u>Officer % with BA/BS Degree</u>
ARNG	98%	55%
USAR	98%	87%
USNR	97%	98%
USMCR	99%	99%
ANG	99%	90%
USAFR	99%	96%
USCGR	97%	75%

The fiscal year 1992 Defense Authorization Act contains a provision which states that Reserve component officers may not be

appointed to the grade of captain or be federally recognized in the grade of captain after September 30, 1995 unless that person has been awarded a baccalaureate degree by an accredited educational institution. The fiscal year 1993 Defense Authorization Act contains a provision to "grandfather" officers in the grade of captain and above.

*The Board recommends that efforts be continued toward a goal of increasing the civilian education level of enlisted personnel to a high school diploma, or equivalent, and a baccalaureate degree for officers.*

## Crew Manning Ratios

A "Crew Manning Ratio" is the number of crews required per weapon system to fully operate that system at its wartime utilization rate.

In fiscal year 1992, the Army Reserve activated two aviation companies which will undergo a two-year test to assess their effectiveness in enhancing Active component crew manning ratios in AH-64 helicopter battalions. These units are designed to offset personnel shortages needed for continuous operations. No changes in pilot manning ratios are projected for fiscal years 1993 and 1994.

The Naval Reserve reports that Crew Manning Ratios for Naval Reserve Helicopter

**Table 4-7  
PERCENT OF SELECTED RESERVE MEMBERS  
WITH TWO OR MORE YEARS ACTIVE DUTY EXPERIENCE**

	<u>Unit</u>		<u>IMA</u>	
	<u>Officer</u>	<u>Enlisted</u>	<u>Officer</u>	<u>Enlisted</u>
Army National Guard	57%	52%	N/A	N/A
Army Reserve	50%	38%	80%	85%
Naval Reserve	96%	85%	99%	98%
Marine Corps Reserve	97%	17%	99%	79%
Air National Guard	76%	59%	N/A	N/A
Air Force Reserve	74%	66%	86%	86%
Coast Guard Reserve	72%	33%	(1)	(1)

**Note:**

1. Coast Guard Reserve IMAs are included in unit totals.

Source: The Reserve components.

Data as of September 30, 1992.

Combat Special Support (HCS) Squadrons should be increased from 2.0 crews to 2.5 crews per aircraft. Marine Corps aviation crew manning ratios were sufficient for Operations DESERT SHIELD/STORM; no changes are anticipated.

Air National Guard and Air Force Reserve crew ratios match the ratios used in the Active Air Force. The present crew ratios proved adequate for Air Force Reserve units involved in Operations DESERT SHIELD/STORM. However, since Operations DESERT SHIELD/STORM, fighter crew ratios were reduced and KC-135 crew ratios are programmed to be reduced. These lower crew ratios will adversely impact these units' ability to prosecute extended surge operations with no allowance for air crew attrition. Crews from non-deploying units will likely be required to increase a deploying unit's crew ratio.

Reduced Reserve crew ratios reduces the pool of volunteers to draw upon prior to mobilization, making the requirement for mobilization earlier and more urgent. The use of Reserve volunteers is particularly critical in the tanker and strategic airlift mission areas due to their vital importance in the beginning of any contingency.

Current crew manning ratios for the Air Force are as follows:

A-10, F-15	1.34 changing to 1.25
KC-135E	1.50 changing to 1.27
KC-10	1.50*
C-141 unit	3.00
C-141 associate	1.90
C-5A/B unit	2.00
C-5A/B associate	1.80
C-130E/H	1.75

\* KC-10 crew ratios are presently 2.00 active duty and 1.50 Reserve. A proposal is under consideration to swap the active duty and Reserve crew ratios, keeping the same total number of crews, but leaving fewer active duty crews available in peacetime.

There are no planned changes to crew manning ratios in the Coast Guard Reserve.

*The Board recommends that Reserve component crew manning ratios be sufficient to provide for 24-hour continuous operations.*

## Dental Panoral Radiographs

For a number of years, the Board has been closely monitoring the implementation of a Department of Defense policy concerning dental panoral radiographs (panoral x-ray). This policy requires that a panoral x-ray be completed for each member of the Selected Reserve, and that a duplicate copy to be filed at the Central Panograph Storage Facility in Monterey, California. Until replaced by DNA testing, which is currently under development, dental panoral radiographs will continue to be the primary means for identification of casualties.

Based on information provided by the Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components, as of September 30, 1992, the percentage of personnel in who have acceptable duplicates on file is shown below.

Duplicates on File	
Army National Guard	93%
Army Reserve	88%
Naval Reserve	80%
Marine Corps Reserve	95%
Air National Guard	69%
Air Force Reserve	47%
Coast Guard Reserve	20%

To correct deficiencies, the Reserve components are utilizing an improved system of feedback reports developed by the Defense Manpower Data Center to track panograph completions and provide progress reports directly to Reserve units. Adequate funds are now being provided for all Reserve components to accomplish dental panoral radiographs.

*The Board recommends that special attention be placed on obtaining panographs for all members of the Selected Reserve and on forwarding acceptable duplicates to the central repository. The goal should be 100 percent acceptable duplicates on file for all members of the Selected Reserve.*

## Employer Support

The National Committee for Employer Support of the Guard and Reserve (NCESGR) operates on behalf of the Secretary of Defense to promote employer support. Almost 4,000 volunteer business and civic leaders, educators, and representatives of local Guard and Reserve

forces serve on 55 state, district, and territorial committees that make up the Employer Support of the Guard and Reserve (ESGR) grassroots organization. Each of the state committees is charged with implementing employer support programs that promote awareness of the importance of the Guard and Reserve and support employer issues and recognition efforts.

The following is a brief description of programs and services provided by NCESGR:

The Mission One program assigns a civilian volunteer to each National Guard and Reserve training center to provide information to Reservists about employer support programs and services. The Mission One program proved invaluable during the mobilization of Reservists for Operations DESERT SHIELD/STORM by providing information concerning reemployment rights and responsibilities.

The Ombudsman program consists of a National Ombudsman office and a network of state committee ombudsmen who work on behalf of National Guardsmen and Reservists who have problems with their employers resulting from their Reserve participation. They provide advice about rights under the law, mediate between parties, and suggest solutions that can provide quick resolution of problems in an informal setting. Ombudsmen work closely with the Department of Labor (DoL), Office of Personnel Management, and local DoL veteran representatives.

The Statement of Support program helps recognize the important role that the National Guard and Reserve play in our national defense. This program encourages employers of Guardsmen or Reservists to sign and prominently display a Statement of Support certificate at their work site. The certificate is also signed by the Secretary of Defense and the ESGR national chairman. By signing the Statement of Support, employers pledge that they will not deny employment or limit job opportunities because of service in the Reserve components, that they will grant leaves of absence for military training, and that they will publicize these policies to their employees.

To provide current exposure to the military, ESGR state committees also conduct employer "Bosslifts" to DoD activities or training



exercises. Employers receive briefings and demonstrations of current inventories of DoD equipment and weapons systems, and most importantly, the contributions made by the Reserve components to the national defense. This first-hand opportunity for employers and civic leaders to participate in Bosslifts has produced a number of very influential advocates for the Reserve components.

The National Committee for Employer Support of the Guard and Reserve reports that the Nation's employers have, by and large, remained overwhelmingly supportive of their employees' participation in the Reserve components. As the Department of Defense moves towards downsized and changed Reserve component forces, there are indications of changing attitudes that may dictate caution over time.

To some employers, a reduced threat seems to imply less need for a strong military. As a result, an employer's willingness to make sacrifices because of an employee's involvement in the Reserve components may diminish. In some cases, changing unit missions or locations adds to this changed attitude by placing greater demands on employers for extended periods of training or retraining.

During the period of "build down," many Reserve training sites are being consolidated or closed to accommodate force restructuring. These consolidations and closures will, in many cases, require Reservists to travel greater distances to attend drills, resulting in longer times away from their jobs. This increased time requirement has the potential of leading to increased employer dissatisfaction.

Surveys consistently show that an individual's employment situation is a major factor in deciding whether to enlist or reenlist in the Reserve components. To the extent that employer-related issues have an impact on recruiting and retention, they have an impact on readiness and mobilization.

Pending legislation in the "Uniformed Services Employment and Reemployment Rights Act" (USERRA), addresses the issue of job discrimination in hiring has been addressed by establishing the concept of "whistle blower" protection for employees who testify for a National Guard or Reserve member in a employment discrimination complaint. While this provision increases protections currently found in the law, additional language may be necessary to prevent employers from predetermining military Reserve status prior to hiring. Similar laws already exist with respect to age, ethnic, and sex discrimination.

*The Board commends the National Committee for Employer Support for the Guard and Reserve for its outstanding efforts and success in improving employer support of the Reserve components.*

*The Board recommends that the Department of Defense continue to emphasize employer support programs.*

*The Board recommends that the Uniformed Services Employment and Reemployment Rights Act be adopted.*

## Family Support Programs

Family support is essential to members of the Reserve components, whose service inevitably means time away from their families. The Army's Human Factors Study showed that mission effectiveness of forward deployed personnel was directly linked to the quality of support rendered the family. Families receiving timely information felt supported. The better informed the family, the more realistic their expectations and the less likely they are to communicate feedback that would detract from their sponsor's combat effectiveness.

Units with rear detachments and family assistance centers played crucial roles in assisting families. Communication with family members concerning mobilization issues enhances the morale and unit cohesion of deployed personnel.

The National Guard Family Program has been informing family members about mobilization issues and concerns since 1986, when the National Guard Family Program regulation was published. This regulation requires an orientation briefing for every family new to the National Guard and an annual information briefing. Both of these briefings include extensive mobilization information. In addition, several excellent publications, pamphlets, brochures, newsletters, and promotional items continually reinforce the family readiness message throughout the year.

Army policy has been changed to require Army National Guard and Army Reserve commanders to operate family assistance and support programs. The National Guard was designated lead agent for family assistance and support. A number of publications, video tapes, and programs of instruction were developed to provide better pre-deployment information for family members. The Army also developed a Reunion Program, patterned after the Navy's program. In addition, non-appropriated funds for use in Army Reserve family support activities/information were made available for the first time.

During Operations DESERT SHIELD/STORM, the Naval Reserve activated Project RESTAR-Reserve Transition and Recognition. Its organization, headed by a senior Selected Reserve officer at the local regional level, acted

as a clearinghouse for problems. This organization operated out of 31 Naval Reserve activities throughout the country and was extremely successful. A study is underway to determine how the RESTAR experience can be translated into a permanent program.

All Selected Marine Corps Reserve (SMCR) units are required to establish and maintain a unit Family Readiness Support Program. This program provides a means by which crucial information can be passed to family members via a key-wives network and/or unit family readiness officer. Units also utilize family service centers which are located near them.

To assist units after mobilization, plans are underway to augment the SMCR "stay behind staff" with IRR and preassigned retirees. They would perform site maintenance functions as well as assist family members with family service matters after an activated unit deploys, thereby allowing activated Marines to concentrate on their mission with less apprehension about family problems.

The Marine Corps is working to establish a Family Service Section in New Orleans. That section would be staffed and funded to train and/or assist SMCR family programs. It would also be a central source of information for family service type questions/issues.

Air National Guard family support programs are administered in conjunction with the Army National Guard through each State Headquarters with oversight responsibilities in the National Guard Bureau.

An Air Force Reserve Family Support Program was developed as a result of Operations DESERT SHIELD/STORM. One of the major requirements is to insure that families are aware of the Service members' obligations and commitments to the Air Force Reserve. The following initiatives have or are being completed: a Family Support Program regulation was published; a Family Support Program Manager was hired; Family Support Director positions have been authorized at all 15 Air Force Reserve bases; Reserve Unit Family Support Specialist Positions for all Air Force Reserve wings/groups are to be established in fiscal year 1993; and a training program will be established for all positions. These actions will enhance family preparedness and thus military

readiness, both during peacetime and future contingencies.

**The Coast Guard's Family Program**  
Administrators incorporated families of Reserve members serving in Operations DESERT SHIELD/STORM into their existing programs. Family Program Administrators provided deployment seminars for all units and reunion seminars for members when they returned. Ombudsmen became contact points for Reservists' families needing assistance with information regarding active duty entitlements and benefits. They were rallying points for supportive groups and social activities.

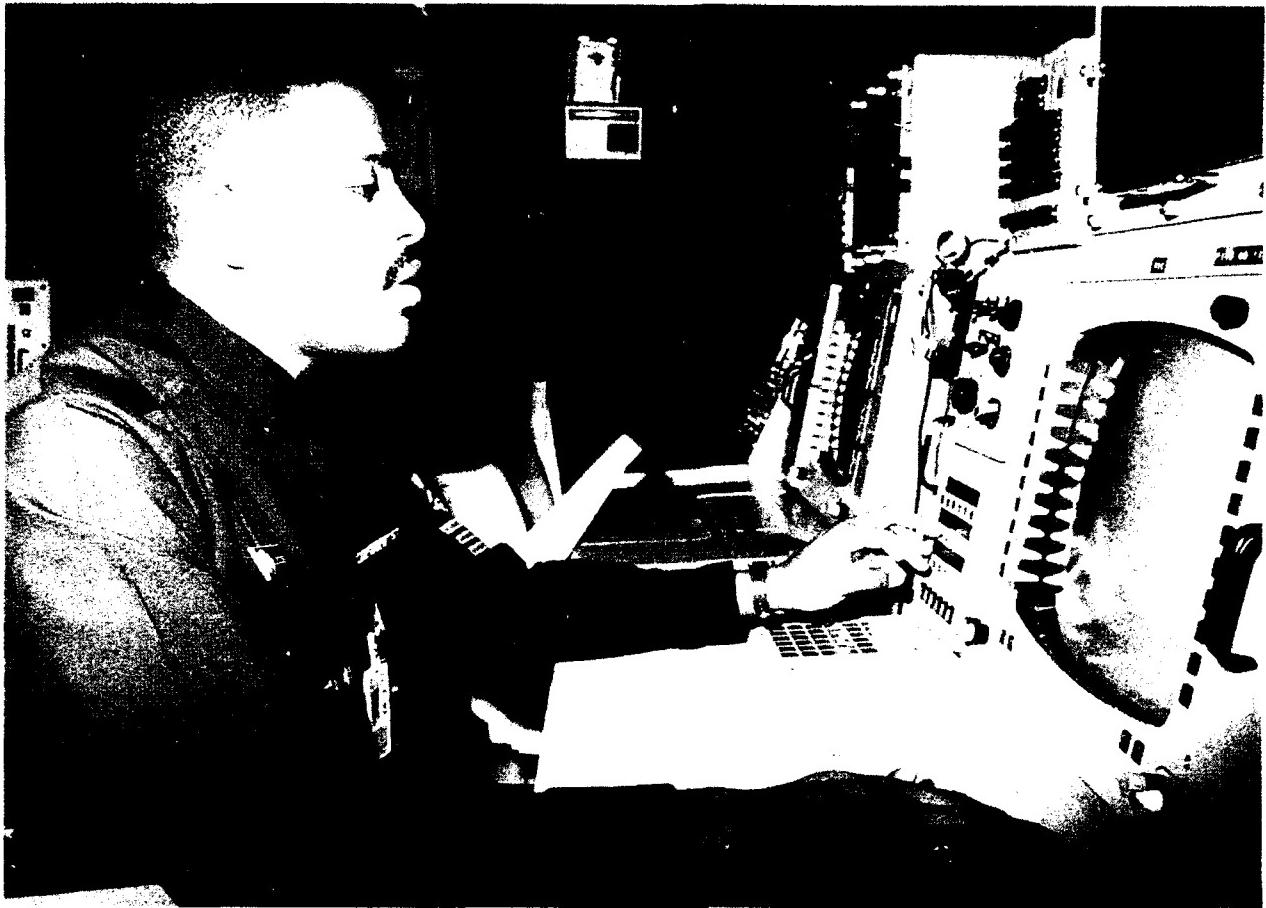
*The Board recommends that support of family programs be continued and expanded.*

### Full-Time Support

The categories of Full-Time Support (FTS) personnel are briefly described in the following paragraphs:

- **Active Guard/Reserve (AGR) Personnel:** National Guard or Reserve members on active duty for 180 days or more, who provide Full-Time Support to the Reserve components and are paid from the Reserve Personnel Appropriations of the military departments concerned. This classification includes Naval Reserve Training and Administration of the Reserve (TAR) personnel, Marine Corps "FTS" personnel, and statutory tour personnel.





- **Military Technicians (MT) and Air Reserve Technicians (ART):** Civilian personnel who occupy technician positions. They are required to be members of the Selected Reserve in the component which they support and simultaneously maintain civil service status.
- **Active component (AC) Personnel:** Military personnel on active duty who directly support the Reserve components. They are paid from Active component appropriations. This classification includes all Coast Guard military personnel assigned to FTS positions.
- **Civil Service (CS) Personnel:** Federal (Title 5) and state civil service personnel, other than military technicians, who provide Full-Time Support to the Reserve components but do not occupy technician positions. They are not required to be members of the Selected Reserve.

Adequate Full-Time Support (FTS) is critical to Reserve component unit readiness. Full-Time Support personnel enable units to meet their mobilization mission by performing the day-to-

day administration and operations necessary to enable drilling Reservists to devote more time to mission-related training.

The Full-Time Support program has made an important contribution to the capabilities, readiness, and training of the National Guard and Reserve. Full-Time Support personnel are a "force multiplier," enabling drilling Reservists to take maximum advantage of the limited training time available and allow commanders to be relieved of administrative requirements so that they can concentrate their efforts on unit training. Full-Time Support personnel also provide continuity and stability vital to the success of Reserve units.

Full-Time Support requirements were filled at 83 percent, or more, during fiscal year 1992, in all Reserve components except the Army National Guard and Army Reserve. Their FTS requirements were filled at 70 percent and 71 percent, respectively. Additional FTS funding is needed to meet these requirements.

Table 4-8 lists Full-Time Support strength, by category, for each Reserve component.

**Table 4-8**  
**FULL-TIME SUPPORT PERSONNEL STRENGTH**

	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	DoD Total	Coast Guard Reserve	Total
<b>AGR/TAR Personnel<sup>1,2</sup></b>									
Required	42,200	19,332	22,925	2,413	N/A	765	87,635	598	88,233
Authorized	25,162	13,146	22,504	2,285	9,081	649	72,827	598	73,425
Assigned	25,024	13,146	22,925	2,280	9,042	649	73,066	598	73,664
<b>Military Technicians<sup>2</sup></b>									
Required	34,432	10,854	N/A	N/A	37,705	10,903	93,894	N/A	93,894
Authorized	27,939	8,112	N/A	N/A	24,639	10,467	71,157	N/A	71,157
Assigned	28,138	8,112	N/A	N/A	24,741	9,860	70,851	N/A	70,851
<b>Active Component<sup>3</sup></b>									
Required	112	1,172	5,583	5,593	909	909	14,278	N/A	14,278
Authorized	112	1,172	5,583	5,034	909	787	13,597	N/A	13,597
Assigned	109	865	7,073	5,034	909	693	14,683	N/A	14,683
<b>Civil Service</b>									
Required	428	1,239	2,938	286	2,071	6,969	13,931	113	14,044
Authorized	428	1,239	2,938	286	1,926	4,476	11,293	113	11,406
Assigned	462	1,005	2,811	286	1,886	5,023	11,473	107	11,580
<b>Total</b>									
Required	77,172	32,597	31,446	8,292	40,685	19,546	209,738	711	210,449
Assigned	53,733	23,128	32,809	7,600	36,578	16,225	170,073	705	170,778
Percent Fill	70%	71%	104%	92%	90%	83%	81%	99%	81%

**Notes:**

1. Includes AGR in the Army, officers and enlisted on Statutory Tours in the Air Force Reserve, TAR in the Naval Reserve, and Reserve military FTS in the Marine Corps Reserve.
2. Air National Guard AGR and MT positions can be filled by either status personnel. All ANG requirements are shown as Military Technicians. USAR includes SOF technicians.
3. Includes AC assigned or attached to RC organizations who provided support exclusively to the Reserve components.

Sources: The DoD Comptroller, Office of the Assistant Secretary of Defense for Reserve Affairs, and the Reserve components.

Data as of January 15, 1993.

The Army National Guard FTS fill rate was 70 percent of requirements. Due to inadequate funding, the ARNG is experiencing critical shortages of FTS personnel in the areas of logistics and supply, administration, maintenance, and training.

As maintenance-intensive new generation equipment is fielded to the ARNG, shortages in FTS maintenance personnel will degrade readiness. A study is in process to determine the effect of FTS on Army National Guard readiness for mobilization, applying lessons learned from Operations DESERT SHIELD/STORM. Full-Time Support impact on

maintenance readiness is a specific area being studied.

Army Reserve FTS requirements are increasing due to new training, mobilization and readiness requirements. Also, Army Reserve IRR strength is increasing dramatically, requiring additional FTS career management personnel.

The Army Reserve Full-Time Support fill rate was 71 percent of requirements. Army Reserve FTS is currently funded at 7.7 percent of Selected Reserve end strength. The Army Reserve has over 10,000 validated FTS

requirements yet to be authorized by Congress for fill. To improve Army Reserve readiness, adequate FTS funding is essential.

The addition of Active component soldiers to the Army Reserve FTS force in areas common to both the Active and Reserve components would help to improve Army Reserve readiness. Merely replacing AGR soldiers with Active component soldiers would serve little useful purpose. An opportunity does exist, however, to augment Army Reserve FTS personnel with Active component soldiers in selected areas which could have an immediate impact--both by bringing Active component expertise to the Army Reserve and by bringing overall staffing to the required levels.

Naval Reserve and Marine Corps Reserve FTS requirements (both military and civilian) were filled at 104 percent and 92 percent, respectively.

The Air National Guard was filled at 90 percent of its FTS requirements for fiscal year 1992. Congress has authorized an increase of 25 FTS positions for the Air National Guard for fiscal year 1993.

Air Force Reserve FTS requirements were filled at 83 percent for fiscal year 1992. The Air Force Reserve utilizes Air Reserve Technicians to provide Full-Time Support to its units. Continued adequate funding of FTS requirements is of vital importance to the readiness and mobilization capabilities of the Air Force Reserve.

There are 711 FTS positions established for the training, administration, and support of the Coast Guard Reserve. Of these, 705 were funded in fiscal year 1992. However, the Coast Guard Reserve ratio of FTS to Selected Reservists is 1:16 while DoD's is 1:8. This shifts much of the administrative work load to drilling Reservists and detracts from unit and individual training.

*The Board continues to oppose any proposal that would mandate the replacement of AGR personnel with those from the Active component or reduce the current compensation or benefits provided to AGR members. The AGR force is a dedicated, professional force which makes a vital contribution to overall Reserve component*

*readiness by assisting drilling Reserve component members to achieve and maintain their readiness requirements.*

*The Board recommends that Full-Time Support authorizations be fully funded and distributed equitably between the Reserve components.*

## **General/Flag Officer Requirements**

The Conference Report that accompanied the National Defense Authorization Act for Fiscal Years 1990 and 1991 directed the Department of Defense to conduct a study of general and flag officer requirements in the Reserve components. The Hay Group was retained to conduct the technical analysis.

As a result of the study, Hay validated 487 positions which met the criteria for general and flag officer positions. When Service-submitted caveats to the evaluation process were included, a total of 543 general and flag officer positions were determined to be required.

The Reserve components are currently operating under general and flag officer ceilings which were established by Congress in 1954. Significant new missions have been added to the Reserve components since that time under the Total Force Policy. Since the number of validated positions under this study exceed existing congressional authorizations, there will continue to be significant delays in Reserve component general and flag officer promotions until the congressional ceiling is increased. As a result, promotable colonels will have to continue to wait for promotion for as long as a year after being assigned to a general officer position (typically until a retirement occurs) after being selected for promotion and confirmed by the Senate.

*The Board recommends that the congressional ceiling for Reserve component general and flag officer positions be increased to reflect the results of the 1992 General and Flag Officer Study.*

*The Board also recommends that legislation be enacted to exclude positions filled by National Guard or Reserve general/flag officers on active duty from Active component grade ceiling accountability.*

## Homosexuals in the Military

The Board is concerned about moving too quickly on the issue of homosexuals in the military, especially since most of the dialogue to date has focused on implications for the Active components. There may be additional considerations which affect the Reserve components uniquely.

*The Board recommends that further study, to include a thorough analysis of applicable changes in laws and regulations and implications for the citizen-soldier, be undertaken prior to implementing any policy change.*

## Individual Mobilization Augmentee Program

The Individual Mobilization Augmentee (IMA) Program provides pre-trained individuals to augment, upon mobilization, Active component organizations which have wartime requirements above their peacetime strength authorizations. As Active component strength is reduced, the IMA program is a cost-effective way of retaining critical skills and personnel to meet Active component wartime requirements.

Department of Defense policy, as stated in DoD Directive 1235.11, requires all IMAs to perform 12 to 14 days of annual training with their unit of assignment. Inactive duty training drills are optional, depending upon component. However, Service IMA programs are not adequately funded. The Army Reserve, for example, was able to fund only 65 percent of officer and 56 percent of enlisted IMAs to attend annual training. Subject to the availability of funds, IMAs may participate in available training and career development opportunities.

Table 4-9 shows the number of IMAs assigned at the end of fiscal year 1992 and the change in funding levels for fiscal year 1993.

Army IMA requirements are developed in an unconstrained manner based upon each command or agency's assessment of their mobilization manpower requirements. As a result, over 21,000 IMA requirements are now documented. However, the number of IMA authorizations during fiscal year 1992 available to support these requirements was only 13,800 and was reduced to 11,041 for fiscal year 1993.

Since documented IMA requirements exceed end strength authorizations, the Army recently published an IMA allocation and distribution plan, which is designed to allocate and prioritize the fill of IMA authorizations among the various commands and agencies based on their specific wartime missions, as well as their anticipated involvement in existing contingency plans. While this plan should help mitigate the overall effect of existing IMA shortages, the continuing lack of sufficient IMA authorizations to support all documented requirements will continue to have an adverse impact on the Army's ability to meet its wartime manpower requirements in a future crisis.

The Army Reserve budget currently provides funding for only 80 percent of assigned IMAs to perform annual training. This funding level is based upon the number of soldiers historically available to train. It should be noted, however, that all requested IMA annual training tours for fiscal year 1992 were supported.

The Naval Reserve has a small IMA program with few vacancies. In addition to Navy Sea College personnel, there are approximately 200 officers and 33 enlisted personnel assigned to IMA units who are authorized 48 drills and two



**Table 4-9**  
**INDIVIDUAL MOBILIZATION AUGMENTEES<sup>1</sup>**

	Officer			Enlisted		
	Required	Budgeted	Assigned	Required	Budgeted	Assigned
Army Reserve	14,726	10,597	10,597	7,261	3,203	3,203
Naval Reserve <sup>2</sup>	169	125	148	459	459	2,345
Marine Corps Reserve	1,155	750	725	1,293	550	497
Air Force Reserve	7,982	7,257	6,824	7,681	5,524	4,960
Coast Guard Reserve	34	34	31	0	0	0

Notes:

- Neither the Army National Guard nor the Air National Guard has an IMA Program.
- The Naval Reserve currently has 2,200 enlisted personnel in the Navy Sea College IMA Program. As "fully trained" veterans, they fill SELRES non-rated requirements, are not required to drill, but perform two weeks annual training (AT).

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.

Data as of September 30, 1992.

weeks annual training. Current manning percentage is 98 percent for enlisted and 89 percent for officers. All requested annual training tours were funded.

The primary reason for IMA vacancies in the Marine Corps Reserve is a funding shortage. Of the currently authorized 2,285 positions, only 1,300 are funded. A prioritization process is being utilized to allocate funding to early-deploying positions. Assigned personnel are funded for 48 drills and two weeks annual training. The remaining positions are filled with pre-assigned Individual Ready Reserve (IRR) members.

The primary reason for IMA vacancies in the Air Force Reserve is a programmed reduction from the fiscal year 1992 funded level of 12,781 to 11,758 in fiscal year 1993. As vacancies occur in organizations where IMA positions are scheduled to be reduced, they are not being filled. Air Force Reserve IMAs fill critical wartime requirements. If these vacancies are not filled, critical shortages will occur in the Active component upon mobilization. Some Air Force major commands are losing IMA authorizations due to base closures. They are also having trouble filling vacancies on bases scheduled for closure, because personnel are reluctant to move into a position that is scheduled to be deleted.

The Coast Guard Reserve provides IMAs to

several agencies/services, including Selective Service, Federal Emergency Management Agency, Office of the Secretary of Defense, and the crisis coordination group facility staff. Annual training tours for all Coast Guard IMAs are fully funded.

*The Board recommends that IMA program authorizations be filled and adequately funded.*

### Individual Ready Reserve/Inactive National Guard

The Individual Ready Reserve (IRR) and the Inactive National Guard (ING) consist of trained individuals who, in most cases, have previously served on active duty or in the Selected Reserve. The IRR of each of the Services is currently growing. This growth is the result of Service members who have a remaining military service obligation being released from active duty because of the Active component drawdown, and Reservists voluntarily extending their military affiliation, but not joining the Selected Reserve. Subject to the availability of funds, they may voluntarily participate in annual training. Others perform inactive duty training for retirement points only.

Operations DESERT SHIELD/STORM demonstrated the need for access to members of the IRR who possess critical skills which may

be needed under conditions short of partial mobilization. The Board is reviewing this issue.

Personnel strengths of the Individual Ready Reserve and the Inactive National Guard as of September 30, 1992 are listed below. Note that the Air National Guard has neither an Individual Ready Reserve nor an Inactive National Guard.

Army National Guard	7,236
Army Reserve	418,592
Naval Reserve	144,681
Marine Corps Reserve	64,200
Air National Guard	N/A
Air Force Reserve	108,187
<b>DoD Total</b>	<b>742,896</b>
Coast Guard Reserve	7,344
<b>Total</b>	<b>750,240</b>

*The Board recommends that adequate funding and personnel management support be provided to effectively manage the growing number of personnel assigned to the Individual Ready Reserve and Inactive National Guard, particularly in view of the drawdown of the Active components.*

### Individual Ready Reserve Screening

Annual screening of the IRR, whether in person or by mail, has proven to be of value both in managing IRR personnel and as a recruiting tool to provide information about opportunities for service in the Selected Reserve.

Personnel data is updated and information is provided concerning the members' military status, entitlements, and responsibilities. Data on IRR members has been improved as a result of the screening process, and the number of bad addresses has been significantly reduced.

*The Board recommends that adequate funding be provided to continue annual screening of the Individual Ready Reserve.*

### Non-deployable Personnel Account

There are major differences in programming and personnel strength accounting procedures between the Active and Reserve components. These differences distort data comparisons and program evaluation within the Department of Defense and in the Manpower Requirements Report submitted annually to support the DoD

budget. These differences also provide misleading data on how much trained manpower is available for deployment. Non-deployables also place a burden on mobilization stations to provide filler personnel.

Section 1115 of the National Defense Authorization Act for fiscal year 1993 requires the Secretary of the Army to establish a personnel accounting category for members of the Army National Guard to be used for categorizing members of the National Guard who have not completed the minimum training required for deployment or who are otherwise not available for deployment.

Additionally, the Office of the Assistant Secretary of Defense for Reserve Affairs has asked the Logistics Management Institute (LMI) to conduct a study of programming and accounting for non-unit manpower in all Reserve components and to recommend alternative procedures. The Logistics Management Institute will evaluate the costs, benefits, and feasibility of changing Reserve component manpower programming and accounting procedures, as well as other approaches suggested by the Reserve components.

*The Board recommends that a Non-deployable Personnel Account be developed to meet the manpower reporting and mobilization requirements of the Department of Defense.*

### Merchant Marine Manning

The Merchant Marine is a critical element of the nation's sealift capability, for it provides the necessary seagoing personnel to man cargo ships which are essential to provide sealift for the majority of war materiel.

*The Board is concerned that there is a declining number of Merchant Marine personnel and that there may not be sufficient qualified personnel to meet future contingencies.*

*The Board supports the efforts of the Department of Transportation to seek new initiatives and sources for Merchant Marine manpower. However, the Board recommends that a Merchant Marine Reserve, if adopted, consist of military, rather than civilian.*

*personnel, and that further study and consideration be given to including the Merchant Marine Reserve as one of the Reserve components.*

*The Board also recommends that the Merchant Marine be covered by the provisions of the Veterans Reemployment Rights Act.*

## **Military Compensation**

The 7th Quadrennial Review of Military Compensation (QRMC) was appointed by the President in November 1990 to "conduct a fundamental review of the overall military compensation system and to assess its ability to continue to attract and retain high quality men and women." The principal focus was to "assess the adequacy of the compensation system to support both transitional changes and future force structures and to reexamine the basic pay, allowances, special pays and bonus programs, and the mechanisms for their periodic adjustment." The 7th QRMC report was submitted to Congress in November, 1992.

The 7th QRMC report had three significant recommendations impacting Reserve compensation. First, the report recommends combining BAQ and VHA into a single housing allowance, adjusted for local housing costs. It also recommends studying housing allowance entitlements for Reserve members on active duty for periods of less than 20 weeks.

Second, the report recommends that the military pay raise be applied to average total Regular Military Compensation (RMC). Implementation of this proposal would result in a system in which changes in basic pay would be a derivation of changes to other elements of RMC. In years when housing and/or food costs increase significantly, increases in basic pay would be correspondingly smaller. Since basic pay constitutes over 90 percent of Reservists' total military compensation, this proposal could work to the disadvantage of members of the Guard and Reserve.

Third, the report recommends that the Department of Defense evaluate ways to relax the constraints on compensation structure imposed by the linkage between basic pay and drill pay. If implemented, this proposal could lead to a disparity between the Reserve and active duty pay systems.

*The Board has considered a number of other compensation-related issues which impact members of the Reserve components. The Board recommends that the Department of Defense determine the feasibility:*

- *of providing "activation pay," in the form of a nontaxable allowance equivalent to two months BAQ, upon Presidential recall or mobilization to members of the Reserve components and retirees of all services*
- *provide immediate eligibility for health care for dependents of members of the Reserve components and retirees if the member is involuntarily called to active duty.*
- *provide pro-rated professional pay to Reserve component health professionals.*
- *change the Reserve retirement system to allow a disabled member of the Reserve components, who has completed at least 15 years of qualifying service, to receive a pro-rated Reserve retirement upon reaching age 60.*
- *continue Selected Reserve Incentive Program (SRIP) bonuses for Reserve component members called to active duty.*
- *Authorize BAQ entitlements for Reservists without dependents.*
- *authorize storage of household goods, if desired, for members of the Reserve components involuntarily called to active duty for less than 90 days.*
- *authorize Dental Plan coverage for dependents of Reservists who are called to active duty for more than 30 days.*
- *amend the Soldiers and Sailors Civil Relief Act to make permanent all temporary legislation provided during Operations DESERT SHIELD/STORM and provide for immediate future eligibility upon mobilization of members of the Reserve components.*
- *amend Title 10 U.S.C. 1074 to permit the Secretary of Defense to pursue a government-sponsored dental insurance plan for members of the Selected Reserve.*

*and possibly for early-deploying members of the Individual Ready Reserve.*

- *improve veterans rights to reinstatement of health insurance.*
- *remove limitations on the amount of leave that may be accrued toward leave payable upon release from active duty.*

*The Board recommends that the comparability and linkage between Active and Reserve component pay be continued and opposes recommendations of the 7th QRMC which would disrupt the long-standing linkage between Active and Reserve component pay systems.*

*The Board also recommends that compensation issues should be addressed prior to mobilization. Otherwise, retention and morale may be adversely affected if soldiers are uncertain about their entitlements and benefits.*

## **Incapacitation Benefits**

The objective of the Reserve incapacitation benefit system is to compensate, to the extent permitted by law, members of the Reserve components who experience incapacitation or loss of civilian earnings as a result of an injury, illness, or disease incurred or aggravated in the line of duty, and provide the required medical and dental care associated with the incapacitation.

Department of Defense Directive 1241.1, dated December 3, 1992, establishes policy, assigns responsibilities, and prescribes procedures on the entitlement to incapacitation pay and medical and dental benefits (after becoming disabled) for members of the Reserve components. This directive prescribes that: "members on active duty under orders specifying a period of 30 days or less or in an inactive duty training status and who become entitled to incapacitation pay shall begin receiving their pay within 30 days of the notification of the injury, illness, or disease."

The Board has been advised that personnel frequently have difficulty in meeting basic living expenses while waiting for incapacitation pay to begin. A system of advance partial payment of entitlements is also needed.

*The Board recommends that special attention be given to developing policies and procedures for advance partial payment of incapacitation pay.*

## **Drill Pay**

Prompt and accurate pay has a direct impact on morale, which affects readiness and retention. It also relieves Reserve component members of pay concerns and allows them to focus on their mission. Timeliness of submission and processing of drill pay continues to be an Inspector General item of concern.

Significant improvements have been made in recent years to reduce Reserve component pay lags. Currently, the average elapsed time from drill attendance to receipt of drill pay ranges from seven to 10 days in the Air Force Reserve to as many as 30 days in the Coast Guard Reserve. New pay systems are planned or being implemented which will ensure the receipt of drill pay within seven to ten days of drill performance.

*The Board recommends that Reserve component pay systems be modified to permit payroll deductions for U.S. Savings Bonds.*

*The Board recommends that the Department of Defense request legislation to allow members of the Reserve components a 100 percent income tax deduction for unreimbursed travel expenses in conjunction with the performance of inactive duty training or unit training assemblies in computing their adjusted gross income.*

*The Board recommends that Title 37, United States Code, be amended to authorize the expenditure of appropriated funds to pay actual expenses of Reservists living outside a reasonable commuting distance when occupying government housing or lodging-in-kind while performing annual active duty training or inactive duty training, whether at or away from their drill site.*

*The Board commends the Reserve components on their efforts to improve the timeliness of receipt of drill pay and recommends that efforts be continued to pay Reserve component personnel within one week of drill attendance.*

## **Pay Upon Mobilization**

Mobilized personnel may not perform to expected standards if they have overriding concerns about the well-being of their families. Because of the potential adverse effect on readiness and morale, the Department of Defense has placed a high priority on resolving and eliminating pay-related problems.

Each of the Reserve components was asked to report on initiatives being taken to reduce the pay problems experienced during Operations DESERT SHIELD/STORM. Their responses indicated that adoption of the new Joint Service Software (JSS) pay system, together with the development of total force pay systems in each of the Services, would eliminate many of the problems encountered during the Persian Gulf crisis.

An amendment is needed to the Soldiers' and Sailors' Civil Relief Act, to provide for an automatic federal and state income tax filing extension for Reservists who are voluntarily or involuntarily called to active duty during time of war or national emergency. Such extension should be for six months from the end of a member's active service and would eliminate the need for separate legislation for each call-up.

*The Board recommends that continued efforts be made to interface or combine Active and Reserve component pay systems to minimize pay problems on mobilization.*

*The Board recommends that legislation be enacted to automatically extend the filing date for federal income tax returns of mobilized Reserve component personnel until six months from the end of their mobilization.*

## **Montgomery G.I. Bill**

The Montgomery G.I. Bill (MGIB) is a highly-effective recruiting and retention incentive. The number of applicants continues to increase. The MGIB has been particularly effective in attracting high-quality recruits to the Reserve components and is considered vital to the success of quality improvement programs. The usage of the MGIB is shown in Table 4-10.

One measure of the value of this program is its positive effect on the number of six-year

enlistments. There were 488,922 Reserve component officer and enlisted personnel qualified for the MGIB program as of September 30, 1992. Of that number, 279,129 members of the Selected Reserve have applied for benefits and 171,930, or sixty-two percent, are participating.

For the National Guard and Reserve, the MGIB is a non-contributory, general entitlement program. Members must have a high school diploma or equivalent, and are required to enlist or agree to serve in the Selected Reserve for a period of six years. Participants who remain members of the Selected Reserve have up to 10 years (after becoming eligible for the MGIB) to use the entitlement.

Study must be in a VA-approved education program. Benefits include vocational/technical programs and flight training. Post-graduate education is not included.

Montgomery G.I. Bill benefits for Selected Reservists are payable for up to 36 months of education at the rates of \$190, \$143, \$95, and \$48 per month for full-time, three-quarter, half-time, and less than half-time study, respectively. The maximum total benefit is \$6,840.

*The Board recommends that the Montgomery G.I. Bill be expanded to permit attendance at graduate school, as a retention incentive for company-grade officers who have completed their minimum service obligation and as a means of reducing the shortage of company-grade and mid-career officers in the Selected Reserve.*

## **Personnel Management Information Systems**

The personnel management information systems of the Reserve components were designed for peacetime management, and as such do not interface well with Active component systems. Lessons learned during Operations DESERT SHIELD/STORM have reinforced the need for an effective interface between Active and Reserve component automated data processing systems. A substantial effort is ongoing.

The Reserve Component Automation System (RCAS) will automate all facets of unit administration, mobilization management and planning and execution for the Army National

**Table 4-10**  
**MONTGOMERY G.I. BILL USAGE**

	<u>Eligibles</u>	<u>Applicants</u>	<u>Percent</u>
Army National Guard	200,015	110,484	55.2%
Army Reserve	96,316	68,533	71.2%
Naval Reserve	39,436	27,972	70.9%
Marine Corps Reserve	26,208	21,045	80.3%
Air National Guard	67,476	30,371	45.0%
Air Force Reserve	55,183	18,437	33.4%
DoD Total	<u>484,634</u>	<u>276,842</u>	<u>57.1%</u>
Coast Guard Reserve	4,012	1,947	48.5%
<b>Total</b>	<b>488,646</b>	<b>278,789</b>	<b>57.1%</b>

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.  
Data as of September 30, 1992.

Guard and Army Reserve. Sub-systems include financial management, operations and training, logistics, engineering, mobilization, safety, and human resources. The RCAS will also provide electronic mail, a data base system, and word processing capability linking units, mobilization stations, and major Army commands.

The RCAS will interface with the Total Army Data Base (TAPDB) and other external systems. During mobilization, the RCAS will track mobilization at home stations and movement to mobilization stations. The RCAS will also provide necessary information to aid in in-processing, equipment cross-leveling, and unit assessment.

In March 1992, the Navy announced a policy for consolidation of active and Reserve component information systems so that pay and personnel actions could be effected with a single transaction. The Naval Reserve is utilizing the Reserve Standard Training Administration and Readiness Support (RSTARS) system, a field-level system located at 400 Naval Reserve activities supporting about 130,000 Selected Reservists. The Navy has also established a task force to propose actions to achieve improved Navy personnel data management through a single data base. Completion of this project will bring Navy Active and Reserve components into common pay and personnel systems.

The Marine Corps has implemented a plan to combine the Pay/Personnel Systems of the

Active and Reserve components into a single system called the Total Force System. The expected completion date is October 1994.

The Air National Guard and Air Force Reserve are working with the Air Force on a major upgrade of their automated personnel systems. Although Air Force personnel files are maintained separately, they interface with each other for day-to-day transfer actions and mobilization. A single retirement point credit information file is maintained for the Air National Guard and Air Force Reserve. All systems interface with other functional systems such as pay, flight data management, security access, education, contingency, operational readiness, etc.

The Coast Guard has integrated Reserve component personnel into its Personnel Management Information System. This allows a change of status when personnel leave active duty, rather than changing personnel systems. The Active component Joint Uniform Military Pay System (JUMPS) is now being expanded to include pay and allowances for members of the Coast Guard Reserve. Inactive duty pay (drill pay) started in JUMPS in early 1992, and all periods of active duty pay (annual training and special duty) will go on-line in 1993. This system will also contain retirement point information.

Work is also underway to expand the Coast Guard detailing and assignment system to

include Reserve billets and personnel. This system will allow rapid integration of Reservists into Coast Guard operations on mobilization. Having all personnel requirements and resources in a single data base will provide the Coast Guard more flexibility in planning for contingencies.

*The Board recommends that continuing efforts be made to ensure an effective interface between Active and Reserve component management information (automated data processing) systems.*

## Post Gulf War Health Concerns

Some soldiers who participated in Operations DESERT SHIELD/STORM are reporting symptoms which may be related to exposure to unusual or unknown diseases or toxic conditions associated with their tour of duty in Southwest Asia.

In an attempt to resolve and further define these conditions, the Service military medical departments and Veterans Administration have agreed to accept these cases for further diagnostic evaluation, without a Line of Duty determination, if the disorder is determined to be related to duty in Southwest Asia and ongoing care or other benefits will be required.

Detailed, long-term studies are being conducted to determine whether veterans of Operations DESERT SHIELD/STORM face any long-term effects. The Veterans Administration is urging all Gulf war veterans to register and receive a medical examination, even if they do not currently have any symptoms.

*The Board recommends that members of the Armed Forces who served in the Persian Gulf be closely monitored for potential exposure to unusual or unknown diseases or toxic conditions associated with their tour of duty in Southwest Asia and that line-of-duty determinations be made promptly, when appropriate.*

## Reserve Officer Personnel Management Act

In adopting the Defense Officer Personnel Management Act (DOPMA) for Active component personnel, Congress directed that a similar statute be submitted for the Reserve components. Current statutes pertaining to the Reserve components are based upon the Reserve Officer Personnel Act (ROPA) of 1954.

To modernize the provisions of ROPA, and to provide common statutes for regarding the appointment, promotion, separation and



retirement of all Reserve component officers, the Reserve Officer Personnel Management Act (ROPMA) was developed by the Department of Defense and submitted to Congress on May 8, 1987.

The House of Representatives passed ROPMA in the closing days of the 102d Congress. Because the Senate did not act on the bill prior to adjournment, the legislation will have to be reintroduced in the 103d Congress.

*The Board recommends that the Reserve Officer Personnel Management Act be enacted by the Congress.*

## Dual Compensation Restrictions

Some Federal employees who are retired members of the Reserve components are unfairly discriminated against at age 60 when they are eligible for Reserve retired pay. This occurs because the Civil Service Reform Act of 1978 (P.L. 95-454, October 13, 1978) reduces their retired pay by the amount that the combined rates of their federal civilian salary and Reserve military retired pay exceeds Level V of the Executive Schedule.

Reservists eligible for retired pay at age 60 who are employed other than by the federal government (civilian sector, self employed, or state and local governments) receive their full retirement pay.

*The Board reaffirms its recommendation that the Secretary of Defense support legislation to remedy this inequity and unfair discrimination against federal employees who have earned their full Reserve retirement.*

## Retirees

Retirees are an important mobilization asset. The availability of this highly-trained and experienced manpower pool of active and Reserve component retirees significantly enhanced the operating capabilities and the training/deployment of Reserve component personnel. Retirees were utilized in Southwest Asia, Europe, and the continental United States during Operations DESERT SHIELD/STORM, and performed with outstanding effectiveness.

The Army utilized retirees extensively in Family Assistance Centers to provide support to

dependents of service members. Retirees were also utilized as helicopter pilots, casualty assistance officers, various medical specialties, and as replacements in critical skills for active duty soldiers in Southwest Asia.

The Marine Corps utilized retirees in various critical specialties. All Air Force retirees recalled were in medical specialties, and all were deployed in the continental United States.

The total numbers of retirees by Service are listed below.

Army	610,401
Navy	441,650
Marine Corps	97,236
Air Force	622,820
<b>DoD Total</b>	<b>1,772,107</b>
Coast Guard	27,457
<b>Total</b>	<b>1,799,564</b>

*The Board affirms the use of retirees to enhance mobilization readiness and urges advance planning to make them more readily available.*

## Sexual Harassment

Sexual harassment severely undermines discipline, morale, leadership, productivity, unit cohesion, and adversely impacts the reputations of the individuals and units involved. If individuals feel that sexual harassment is present within the command, they will be less likely to remain a member of the Reserve components. Thus, sexual harassment perpetuates problems with recruiting, retention, reenlistment, and mobilization readiness.

*The Board supports the efforts of the Department of Defense to eliminate all forms of sexual harassment.*

## Skill Mismatch

Today's highly mobile society presents a tremendous challenge in maintaining an aligned force. Reserve component members who are not qualified in their current duty position must be retrained, notwithstanding any previous training or specialties they may have held. Although they may be mobilization assets by virtue of their previous training, they must also be able to perform the duties of their current

assignment. It is not unusual for a National Guardsman or Reservist to move several times during his/her Reserve component service, and this often results in assignment to a different type of unit and specialty.

During the first quarter of fiscal year 1992, the Army National Guard achieved the goal of 85 percent duty MOS qualification.

To capitalize on the larger number of qualified soldiers joining from the Active component, the Army Reserve placed a restriction on recruiting only soldiers who were qualified in their duty military occupational specialty beginning in April 1992. This constraint affects only prior service applicants. With a few exceptions, prior service applicants must possess a specialty required by the unit prior to assignment. Since this new policy became effective, the duty MOS qualification rate has increased significantly.

The Naval Reserve has reduced skill mismatch by: implementing a regional recruiting plan to better match recruiting goals with the veteran population in various geographic areas; targeting critical ratings and Navy Enlisted Classification Codes for reenlistment and affiliation bonuses; by restricting the range of substitute ratings which may be assigned to enlisted billets; and by increasing the effort to assign properly rated people to vacant billets.

The Marine Corps Reserve has increased concentration on MOS qualification during fiscal year 1992. There is greater selectivity in recruiting, more aggressive pursuit of OJT programs, and greater stress on MOS training. To reduce "no-shows" at the schoolhouse and increase MOS qualification, a major effort has been made to get individual Marines and their commanders to commit to attendance at MOS-producing schools.

The Air National Guard defines "specialty mismatches" as instances when an airman's assigned specialty does not coincide with the duty position. Only 2.3 percent of the enlisted force is in this category. Air National Guard assignment policy requires these mismatches to be resolved within 24 months.

Ninety-nine percent of Air Force Reservists (unit and IMA) have met skill qualifications. The

Air Force Reserve enlisted promotion system is managed on a unit vacancy basis. Generally, an individual must possess the basic skill qualifications as a prerequisite for assignment to a position.

The Coast Guard Reserve also made improvements, in fiscal year 1992, in reducing skill mismatches. Based on the results of a job task analysis, the port securityman rating and the fire and safety technician rating were merged. Additionally, lessons learned from Operations DESERT SHIELD/STORM were reviewed.

*The Board commends the efforts of the Reserve components in improving force alignment and reducing skill mismatch.*

## Social Security Offset

Current law (P.L. 96-402) unfairly provides for reductions of the Survivor Benefit Plan (SBP) annuity to surviving spouses of Reservists. When P.L. 96-402 was enacted in 1985, it eliminated the little-understood Social Security offset to SBP survivors annuity under previous law. Reserve component retirees were basically exempted from a Social Security offset if they paid maximum Social Security taxes based on their civilian employment.

Thus, P.L. 96-402, with its automatic reduction of the survivor annuity, from 55 percent to 35 percent at age 62, discriminates against the retired Reservist whose survivors had previously been protected from an unjustified Social Security offset.

*The Board reaffirms its recommendation that the Secretary of Defense support legislation to remedy this unfair result to the surviving spouses of eligible members of the Reserve components.*

## Standby Reserve

Personnel assigned to the Standby Reserve have completed all obligated or required service or have been removed from the Ready Reserve because of civilian employment, temporary hardship, or disability. Standby Reservists maintain their military affiliation, but are not required to perform training or be assigned to a unit.

Standby Reserve personnel strengths of each of the Reserve components are listed below. Note that the National Guard has no Standby Reserve.

Army National Guard	N/A
Army Reserve	1,047
Naval Reserve	9,770
Marine Corps Reserve	468
Air National Guard	N/A
Air Force Reserve	13,573
<b>DoD Total</b>	<b>24,858</b>
Coast Guard Reserve	722
<b>Total</b>	<b>25,528</b>

### Transition from Active Duty to Reserve Component

The key elements of a successful transition program are the availability of a National Guard or Reserve unit within a reasonable commuting distance of the member's residence and a funded position vacancy which requires the member's specialty.

During fiscal year 1992, 13,395 Army enlisted soldiers were placed in Army National Guard units and another 14,192 were placed in Army Reserve units for a total of 27,587 assignments via the Reserve Component Transition program. These results were 141

percent above the aggregate assigned mission and broke all previous records.

Not included in these numbers are another 21,636 soldiers, many without a remaining service obligation, who enlisted into the Individual Ready Reserve and 448 officers and warrant officers who were placed into Army National Guard and Army Reserve units. In addition, the 79 percent military occupational specialty qualification rate of soldiers assigned to Army Reserve units exceeded the previous record of 75 percent set during fiscal year 1990/91. For fiscal year 1993, the Transition Program mission is to assign 38 percent or 16,000 of the eligible enlisted population into Army National Guard and Army Reserve units.

Table 4-11 shows the numbers of Active component personnel accessed into each of the Reserve components during fiscal year 1992.

Reductions in the fiscal year 1993 budget may force the Reserve components to reduce accessions to achieve budgeted end strength. This will limit the number of Active component members the Reserve components can accept. Both the Army National Guard and the Army Reserve could accept additional Active component soldiers, if funded.

**Table 4-11  
TRANSITION GAINS FROM ACTIVE DUTY**

	<u>Officer</u>	<u>Warrant Officer</u>	<u>Enlisted</u>	<u>Total</u>
Army National Guard	515	259	21,773	22,547
Army Reserve	336	26	13,989	14,351
Naval Reserve	2,004	0	13,010	15,014
Marine Corps Reserve	41	0	280	321
Air National Guard	390	N/A	2,159	2,549 <sup>1</sup>
Air Force Reserve	127	N/A	1,836	1,963
<b>DoD Total</b>	<b>3,413</b>	<b>285</b>	<b>53,047</b>	<b>56,745</b>
Coast Guard Reserve	81	2	688	771
<b>Total</b>	<b>3,494</b>	<b>287</b>	<b>53,735</b>	<b>57,516</b>

Note:

1. PALACE CHASE (an Air Force program which encourages airmen who have been released from the Active component to join the Air National Guard or the Air Force Reserve; see AFR 35-47.)

Source: Office of the Assistant Secretary of Defense for Reserve Affairs and the Coast Guard.  
Data as of September 30, 1992.

The majority of soldiers leaving active duty possess combat arms skills. The skills required by the Army Reserve are mainly combat service support, and in the lower pay grades.

Notwithstanding, the Reserve Component Transition program doubled their programmed assignments to the Army Reserve. The extremely high rate of duty MOS qualified (DMOSQ) of these assignments (82.7 percent) contributed to an overall 4 percent DMOSQ increase of the Army Reserve during fiscal year 1992.

It should also be noted that both the Army National Guard and the Army Reserve have a large number of unfunded Full-Time Support positions. If these positions were funded and dedicated to former Active component soldiers, this would significantly enhance readiness and improve administration and training.

The following is a summary of suggestions to establish a more effective transition program:

- Early identification of personnel desiring to make the transition to the Reserve component.
- Time to locate employment before leaving active duty.
- Joint-Service seminars to discuss civilian job finding skills, education opportunities, veterans rights and entitlements, and opportunities for service in the Reserve components.
- A referral network between the various recruiting commands to enable those leaving active duty to reserve a unit vacancy prior to separation.

*The Board recommends that maximum efforts be made to transition members of the Active component into Reserve component units when they leave active duty. Not only will this preserve a substantial training investment, but also the skills of these personnel will be retained which will improve the readiness of the Reserve components.*

## Veterans Reemployment Rights

Based on experience gained from working with thousands of returning Reservists, the observation of the National Committee for

Employer Support of the Guard and Reserve (NCESGR) Ombudsman is that the overwhelming majority of Reservists called to active duty from civilian employment were promptly reinstated following release from military service. In most cases where conflicts occurred, resolution was quickly achieved either through the informal efforts of NCESGR headquarters and volunteer state committee ombudsmen, or through formal assistance from the U.S. Department of Labor and other Federal agencies.

However, there is general consensus among concerned agencies that changes are needed in the 52-year old Veterans Reemployment Rights law. As of August 1, 1992, legislation to significantly amend the existing statute was awaiting introduction in the Congress. This legislation, known as the Uniformed Services Employment and Reemployment Rights Act (USERRA), promises to clarify and simplify the statutory rights and responsibilities of employers and employees who perform military service, while keeping intact existing strong protections for Reservists and other veterans.

If enacted, the new law would eliminate the confusion currently generated among employers and Reservists by the many categories of protected military duty (e.g., ADT/AGR Title 32, AGR Title 10/AD, and IADT), each of which has its own unique set of rules. The Uniformed Services Employment and Reemployment Rights Act is intended to provide protections that are generally based on the duration, rather than type, of military duty performed. Among other features of USERRA are improvements in the protection afforded Federal employees and a greater role for the Department of Labor (DoL) in the administration of the statute.

*The Board recommends that the Uniformed Services Employment and Reemployment Rights Act be enacted by the Congress.*

## Warrant Officer Management

As noted previously, there are over 4,000 warrant officer vacancies in the Reserve components. To attack this problem, the Army has developed a Warrant Officer Leader Development Action Plan (WOLDAP) containing 13 issues and 28 recommendations which address the training, development and

utilization of warrant officers. Twelve recommendations directly address the Reserve component warrant officer shortage. The WOLDAP was approved in 1992.

Warrant Officer Candidate School graduates may now be appointed to WO1 immediately upon graduation, rather than having to wait two-to-three years until completion of Warrant Officer Technical and Tactical Certification. This reduced the promotion delay by two to three years and will greatly facilitate recruiting to fill the many vacant warrant officer positions in the Army National Guard and Army Reserve.

The limited number of Reserve component warrant officer positions authorized for any single MOS within a geographical area (normal commuting distance) does not generally lend itself to rotational or progressive assignments.

The primary reason for the warrant officer shortage is the difficulty in locating quality NCOs who can leave their jobs for the period of time required to complete the lengthy warrant officer training and certification process. The Warrant Officer Leadership Development Plan includes the following additional initiatives:

- accession of warrant officers at five to eight years of service.
- standardize Active and Reserve component appointment criteria.
- expand Reserve component Tactical/Technical Certification training methods (diagnostic testing).
- challenge examinations to shorten tactical/technical certification (T/TC) for Reserve component. (Pass the exam and be certified).

The Naval Reserve is authorized 477 warrant officers positions, of which 402 were filled as of September 1992. Vacant CWO billets are filled by commissioned officers if warrant officers are not available. Warrant officer training quotas are being increased over the next several years. Additionally, recent improvements in career management resulting from the High-Year Tenure Program are allowing more petty officers to apply for appointment.

The Marine Corps Reserve has 25 warrant

officer vacancies. Vacancies are relatively minor and some may disappear with fiscal year 1993 strength reductions.

The Air National Guard does not have warrant officers, nor does the Air Force Reserve. The Coast Guard Reserve has an adequate supply of qualified applicants to fill available vacancies.

The recently adopted Warrant Officer Management Act (WOMA) authorizes each Service secretary to implement WOMA provisions for the Reserve components. WOMA also provides for the establishment of the grade of Chief Warrant Officer Five (CW5), which is applicable to both the Active and Reserve components.

*The Board recommends that continuing efforts be made to improve the management of Reserve component warrant officers.*

## Women in the Reserve Components

Women comprise 13 percent of the Selected Reserve strength of the Reserve components. Service combat exclusion policies define those



**Table 4-12**  
**WOMEN IN THE RESERVE COMPONENTS**

	OFFICER		ENLISTED	
	Selected Reserve	IRR/ING	Selected Reserve	IRR/ING
Army National Guard	3,718	56	28,135	695
Army Reserve	12,004	11,859	50,453	52,562
Naval Reserve	3,939	3,422	17,562	15,666
Marine Corps Reserve	176	245	1,329	3,532
Air National Guard	1,584	N/A	14,364	N/A
Air Force Reserve	3,413	4,162	12,108	18,052
DoD Total	24,834	19,744	123,951	90,507
Coast Guard Reserve	107	40	1,213	896
<b>Total</b>	<b>24,941</b>	<b>19,784</b>	<b>125,164</b>	<b>91,403</b>

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.  
Data as of September 30, 1992.

combat-related career fields to which women cannot be assigned. By policy, women are precluded from serving in combat positions or highest combat probable positions.

A listing of the number of women assigned to each Reserve component is presented in Table 4-12.

Except for the combat exclusion policies, men and women possessing similar skills and qualifications are assigned on an equitable basis. Women are fully integrated into those career fields available to them. Operations JUST CAUSE, DESERT SHIELD/STORM and PROVIDE COMFORT demonstrated the important contributions women are making as members of the Armed Forces.

There were no new career fields opened to women during fiscal year 1992. However, opportunities for Full-Time Support (TAR) women officers and enlisted personnel to serve

on sea duty were expanded with the introduction of KNOX Class (FFT-1052) training frigates to the Naval Reserve Force. There are currently four TAR officers and 112 TAR enlisted women assigned to the eight Naval Reserve Force frigates.

Studies are continuing within the Department of Defense and other organizations regarding the future role of women in the Armed Forces.

Department of Defense restrictions on the assignment of women to combat units do not apply to the Coast Guard. Women routinely carry out, without restrictions, a myriad of duties afloat, including command and law enforcement during drug interdiction duties.

*The Board reaffirms its support for the expansion of appropriate assignments and career opportunities for women in the Reserve components.* (S)



# Training and Mobilization Readiness

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*"... trained people are a gold mine, a great source of national strength."*

*General Merrill A. McPeak  
Chief of Staff, U.S. Air Force*



## General

Training is an essential element in maintaining an effective, ready Guard and Reserve. The purpose of training is to prepare the Reserve components to fight and win in combat as effective partners in the Total Force.

## Training Initiatives

New threats, new weapons systems, and new doctrine necessitate training changes for both the Active and Reserve components to shape the Total Force for the future. Each Service stresses "integrated training" with the Active components.

New training initiatives for the Army National Guard include the Combined Arms Training Strategy, Division Staff Training Program, Brigade Staff Collective Training, and development of an Armor and Infantry crew manual. These initiatives will contribute to improvements in the readiness of the Army National Guard. The Separate Brigade Refresher Course and the Collective Tactical Commander's Development Course are two successful pilot programs.

New National Guard training programs planned for fiscal year 1993 and beyond include a Gunnery Training Strategy, a Battle Training

Center, Platoon Training Areas, the utilization of high-technology simulation instrumentation equipment, increased rotations at Combat Training Centers, a Brigade Refresher Course, Lanes Training, Exportable Training Packages, and a Systems Approach to Training.

During fiscal year 1992, 102 high priority units from 50 states and territories participated in the BOLD SHIFT pilot program. This program makes Active component units responsible for training Reserve component units. The BOLD SHIFT program has enhanced training relationships between the Active component and Reserve components and should improve readiness of the Total Army.

The Leaders Increasing Knowledge and Understanding Program (LINK-UP) is a reciprocal Active component and Army Reserve leader exchange program that provides an opportunity for officers and noncommissioned officers in key positions to increase their leadership skills, knowledge, and attitudes by training with each other in an Active component-Army Reserve counterpart relationship. The program is currently funded for 30 Reserve soldiers in fiscal year 1993 and will increase to 100 Reserve soldiers per year by fiscal year 1999.

The Army Reserve is making the transition to new Reserve Component Officer Advanced Courses which will be completed in two phases. Phase I will be a correspondence course; phase II will be a resident course.

Successful training programs implemented in the Naval Reserve include the Training Frigate (FFT) Program, the Reserve Standard Training Administration and Readiness Support Training Module, Mobile Firing Ranges for Security Force Training, Aviation/Maintenance Training Improvement Programs, Qualification Study Curricula, Shop Qualification Improvement Program, Training Assist Teams, the Train the Trainer Program, and a consolidation of Reserve billet training requirements.

New training programs planned for the Naval Reserve include an expanded C-130T flight engineer training curriculum, the Authoring Instructional Media System, Rating Proficiency Training, the Electronic Warfare Onboard Trainer, and the Tactical Anti-submarine Warfare Integrated Trainer.

The Marine Corps Reserve has successfully implemented the Combined Arms Exercise program that Active component units utilize. Simulation devices and staff trainers have been developed and introduced over the last several years to meet the training requirements of both Active and Reserve units. New programs to support Marine Corps Reserve training requirements include a Reserve Assault Amphibious Vehicle Course, a Reserve Platoon Sergeant Course, a Reserve Squad Leader Course, and the introduction of the Combined Arms Staff Trainer.

The Air National Guard and the Air Force Reserve continue to rely on the Air Force's Air Training Command for most of their training requirements.

The Air Training Command is testing a new Distance Learning Program. The Distance Learning Program makes use of one-way video (students see instructor) and two-way audio. Air National Guard and Air Force Reserve personnel throughout the country are participating in the test courses.

The Air National Guard is also working with community colleges to develop and conduct formal training courses. Courses will be developed by one community college and be available for use at any other community college in the country.

The Air Force Reserve sponsored the development of firearms simulators. The system developed marks a major advance in small-arms training, and has also been used by the Marine Corps Reserve. The Air Force endorses the use of the Reserve system when constraints on ranges or training make live fire impractical. The system is now being deployed to all Air Force Reserve host bases, and will eliminate many of the problems frequently associated with live fire on ranges.

Specific initiatives being developed in the Air Force's Year of Training include the following which will be implemented starting in fiscal year 1993: mandatory career field training plans for each Air Force specialty code; in-residence initial skills training for all officers and airmen; in-residence advanced skills training for all officers and airmen; and special training and certification for individuals responsible for on-the-job training.

The Coast Guard Reserve has initiated a systematic scientific approach to improving its training programs. Its fiscal year 1992 efforts focused on the analysis phase. Job Task Analyses for all formal training programs and Occupational Analyses for all ratings are being reviewed.

Specific projects completed in fiscal year 1992 include an analysis of port securityman and fire safety technician ratings, a review of Storekeeper Basic Course, a survey of health services technician training requirements, and on-going development of Master Training Plans for every Reserve rating, the development of the Coast Guard's Chief Petty Officers Academy combined resident/nonresident program for senior enlisted Reserve personnel, and a review of training at the Reserve Enlisted Basic Indoctrination program.

There is concern among all the Reserve components that declining training budgets will have a major impact on training programs. Budget cuts will reduce the ability to conduct the necessary analyses and the continued evaluation of training programs. Such cuts will also minimize the use of technology advances such as computer-based training, interactive video training, and other emerging technologies, and delay or prevent the implementation of some programs. A decrease in staffing levels of training developers and instructors will have a major impact on the quality and availability of training materials and courses.

Smaller budgets will result in fewer flight hours, fewer training devices purchased, less training ammunition expended, and perhaps the curtailment of transportation to some of the more capable training sites.

*The Board recommends that:*

- *Reserve training budgets be adequately funded with consideration that changing threats, doctrines, and weapons systems require innovative training initiatives for readiness.*
- *additional funding be provided for the Army National Guard and Army Reserve to expand BOLD SHIFT initiatives to all Guard and Reserve units.*

## **Flexible Training Scheduling Innovations**

Traditionally, Reserve component units train for one weekend (four drills) per month plus a two-week annual training period (AT). This provides a minimum of 39 days of training per year. Weekend drills can be supplemented by additional paid training periods (APDs, RMPs, AFTPAs) subject to the availability of funds. In an effort to improve training effectiveness, the Reserve components implemented or continued the use of flexible training scheduling initiatives in fiscal year 1992.

In the Army National Guard, some units have combined IDT periods with AT periods. For example, a unit would have an IDT period (weekend) followed by a one week AT period and ending with an IDT period (weekend). Scout units in Alaska have combined some IDT periods into a week at a time, reducing the amount of travel and providing concentrated periods of training. Some Army National Guard organizations have been assigned extra training time to enhance critical skills, such as aviation. Army National Guard Roundup and Roundout Brigades have been using additional AT periods and active duty for training to increase the readiness of their organizations.

Instead of conducting a normal four-drill Multiple Unit Training Assembly (MUTA-4), the Army Reserve sometimes adds a fifth drill (MUTA-5) to gain valuable training time.



The majority of Naval Reservists perform IDT in the traditional four-drill weekend and two-week AT format. A number of functional training variations and several test programs are being explored to improve Reserve training and mission effectiveness. These include additional drills for units such as Naval Reserve Force ships, aviation squadrons, and Naval Security Groups. Additionally, a flexible drill test is being conducted by the construction battalions to test their ability to schedule inactive duty readiness training around specific peacetime support projects. The test eliminates quarterly drill restrictions, enabling multiple inactive duty training periods of 2 to 20 continuous days (4 to 40 inactive training drill periods).

Several flexible drill programs have been implemented for Naval Reserve medical personnel. These programs include REFLEX (Reserve Flexibility), which provides IDT opportunities for Medical Corps and Nurse Corps officers (physicians and nurses) to meet the four-hour requirement for one drill through cumulative hourly increments; PRIMUS (Physician Reservists in Medical Universities and Schools), which permits 100 percent flexibility in performance of regular drills; NEDOC (Navy Expanded Drill Opportunity, Clinical), which authorizes primary health care providers up to 30 ATPs and allows them to schedule IDT as required, to provide clinical contributory support at military treatment facilities and help reduce Active component CHAMPUS health care costs.

Though the Marine Corps Reserve utilizes some flexibility for scheduling training, the majority of units and individuals utilize the traditional weekend drill and two-week AT schedule to meet unit readiness requirements. Some units have combined IDT periods with normal AT in order to participate in exercises.

Air National Guard units utilize all categories and variations of allocated workdays. In addition to the IDT and AT periods referenced above, Air National Guard members use special and proficiency training periods and training assembly preparatory periods to complete training requirements and improve training effectiveness. In addition, by scheduling members to perform training during non-core duty hours, non-duty weekends, or during alternate training assemblies, proficiency training can be given without the distractions

associated with the day-to-day operations. Such scheduling makes more efficient use of scarce training equipment and resources.

Several large Air Force Reserve flying units and aerial port squadrons have multiple unit training assembly periods during the month. Multiple UTAs allow training for all members of large units, without saturating the available host base support capability, and make more efficient use of unit assets. They also utilize split annual training periods and combined periods of inactive duty for training in an effort to improve training effectiveness.

Some Coast Guard Reservists perform their IDT drills during the week instead of on weekends. These non-weekend IDT periods have provided excellent augmentation/training opportunities. Weekday drills, especially at marine safety-related units, give the Reservists opportunities to work directly with their Active component counterparts who may not normally be in a duty status during weekends.

*The Board recommends that flexible drill and annual training scheduling initiatives be explored to take advantage of all available training resources.*

### **Simulation Management Initiatives**

The Department of Defense has supported the use of advanced training technology which has proved to be cost-effective as well as timesaving and proficiency-enhancing. The long-range goal is to provide relatively inexpensive simulation devices to each Reserve training center where the equipment these devices emulate is used. These devices will be designed to train more than one person and simulate the operation of actual equipment so that Reservists train on equipment which they are expected to use in combat.

The Defense Modeling and Simulation Office was established to promote the use of modeling and simulation throughout the Department of Defense. Several initiatives being undertaken will have considerable impact on the Reserve components in two significant ways. They will increase the effectiveness of training time during the post-mobilization period prior to combat. They will also provide additional efficiency and effectiveness to the current Reserve component training year of 39 days.

The Defense Advanced Research Projects Agency (DARPA), in cooperation with the Army National Guard, is pursuing the application of advanced technologies to an intensified Combined Arms Training Strategy (CATS). This will create an order of magnitude improvement in the effectiveness and efficiency of training in Roundup and Roundout units.

DARPA's Advanced Distributive Simulation project is designed to demonstrate affordable distributed technology, methods for integrating the Army National Guard into the 21st century simulation environment, the effect of advanced technologies and innovative training strategies on National Guard unit performance, and to invent new ways to train. The multi-year project will culminate with evaluation of test units compared to a control group during fiscal year 1996 and fiscal year 1997 at the National Training Center. Offering realism, availability to users at their home stations, and flexibility to adapt to new scenarios, the project has the potential to help overcome many of the training deficiencies noted from Operations DESERT SHIELD/STORM.

*The Board encourages the Department of Defense to continue the initiatives undertaken in recent years to provide Reserve components with state-of-the-art training devices.*

*The Board recommends that advanced technology training devices be developed and sufficiently funded to meet the unique training needs of the Reserve components.*

*The Board also recommends that the DARPA/Army National Guard Advanced Distributed Simulation Program be included in the ongoing Department of Defense research and engineering initiatives.*

### **Training Delivery Systems**

Training delivery systems, including computer-assisted instruction, interactive courseware, simulators and wargaming systems, are essential to Reserve component training effectiveness and efficiency. Though the Reserve components received various training delivery systems during fiscal year 1992, there continues to be inadequate funding.

New systems planned for the Army National Guard in fiscal year 1993 and beyond include

**Mobile Conduct of Fire Trainer (MCOFT)** conversions, planned fielding of Guard Unit Armory Device Full-Crew Interactive Simulation Trainer (GUARDFIST II) for Field Artillery, and planned fielding of Close Combat Tactical Trainer (CCTT) in fiscal years 1996-98.

Training Delivery systems needed by the Army Reserve include the JANUS system to communicate and interface with the Battle Projection Centers (BPCs) and Battalion Battle Simulations, the Engagement Skills Trainer as replacement for the obsolete Weponeer system, Mobile Subscriber Equipment and Radio Communications Node to train Communications Battalions, and Battle Staff Training for Army Reserve aviation battalion and group staffs.

New systems provided to the Naval Reserve in fiscal year 1992 include weapons systems trainers, a Lightweight Electronic Warfare Training system, computer-based trainers, and a tactical aircraft mission planning system, a weapons handling trainer, a waterfront trainer, a propulsion plant simulator, and the Passive Acoustic Display System.

The Naval Reserve continues to identify a number of additional training devices needed. These devices include weapons systems trainers, operational flight trainers, a deployable acoustic readiness training system, ECM trainers, the tactical ASW incremental trainer, a propulsion plant simulator, target generators, electronic information delivery systems, and the passive acoustic display system.

Funding has not been made available for the procurement of aviation training devices listed above; \$80.5 million is needed to ensure adequate flight crew training. Further, funds are insufficient to provide life-cycle support for those interactive courseware training systems in place or for those scheduled for purchase. These include 1,250 Electronic Information Delivery Systems, 10 Tactical ASW Incremental Trainers, and 12 Propulsion Plant Simulators.

The Marine Corps Reserve makes extensive use of simulation devices to support training. Each element of the Marine Air Ground Task Force has a requirement for these systems. Funding support was adequate in fiscal year 1992 for currently fielded systems and for those systems in development.

During fiscal year 1992, the Marine Corps Reserve continued to field Direct-Fire Training Systems such as the Indoor Simulated Marksmanship Trainer, the Squad Engagement Training System for pistol and rifle training, Precision Gunnery Training Systems for anti-tank gunners, the Tank Integrated Simulation Trainer, the Mobile Conduct of Fire Trainer for tank crew training, F/A-18 simulators, and the Tactical Air Operation Module.

The Air National Guard attempts to provide limited capability devices at each unit, and full mission training devices at regional training centers for access by all units. In fiscal year 1992, operational mission changes and force structure realignments resulted in the fielding of the RF-4C/F-4G Training System Support Center, the KC-135R Regional Simulator Training Center, an F-4G flight simulator, and a joint Air Force Reserve/Air National Guard C-5 Regional Simulator Training Center.

The Air National Guard has inadequate funding for the contract logistic support needed for the F-15/F-16 Unit Training Devices, KC-135 Flight Simulators and the RF-4C/F-4G Simulator Training System Support Center.

The Air Force Reserve's overall strategy is to employ proven off-the-shelf hardware, and at the same time, develop systems-unique courseware only where standard courseware is not available. Specifically, the development and employment of systems is continuing in the following four major areas: exportable training systems, distance training, firearms simulation devices, and aircrew training devices. The only major shortfall is combat arms training maintenance simulations.

With few exceptions, the Coast Guard Reserve has no current specific requirements for training devices or simulators. However, the acquisition of additional training simulators could enhance the usefulness of training time. For example, access to "shoot-don't shoot" simulators would broaden the weapons skills of Reservists while easing scheduling difficulties at ranges. Each Coast Guard training center has created generic computer-based training programs to meet training needs. Accordingly, there exists a host of both low and hi-tech training delivery systems, courseware, and training aids that Coast Guard Reservists use as part of their formal resident training.

*The Board believes that training delivery systems minimize the cost of training and increase the amount of available hands-on training for unit and individual members.*

*The Board recommends that increased funding be provided for Reserve component training simulators and devices.*

### **Civilian Contracted/Civilian-Acquired Training**

Training provided by civilians under contract can be cost-effective. Vocational/technical schools, universities, colleges, community colleges, maritime academies, the American Heart Association, the American Red Cross, private contractors, major airline companies, computer companies, and hospitals are sources for civilian contract training. In many cases, due to the limited number of people requiring training, it is more cost-effective to contract for the training than to staff and maintain a training facility flexible enough to meet all training requirements.

For many of the Reserve components, civilian contract training is considered one of the major training initiatives, and has increased significantly over the years. The use of civilian contract training during fiscal year 1992 varied from Service to Service.

The Army National Guard used accredited civilian institutions to provide training for 144 Army Guard members in clinical and classroom instruction in, primarily, the health care fields.

The Army Reserve focuses its civilian contract training on hard-skill occupational specialties. Nearly 1,000 Army Reservists were trained in various medical specialties during fiscal year 1992. Some civilian contract training was used for language skills and high-technology skill training.

Civilian contract training was used to train 9,774 Naval Reservists during fiscal year 1992 in primary skill areas including in-rate training and specialties such as CPR, first aid, trauma nurse care, equipment maintenance and repair, law enforcement, and data processing.

The Air National Guard used contract civilian training for 1,500 Guard members in a variety of areas, including pilot training, flight

engineer training, and in-flight passenger specialist training.

The Marine Corps Reserve and the Air Force Reserve did not use civilian contract training during fiscal year 1992.

Contract civilian training creates valuable training opportunities which would not otherwise be available to the Coast Guard Reserve. In fiscal year 1992, 20 members of the Coast Guard Reserve received training through the Federal Law Enforcement Center in port security skills areas. Reserve members received training in anti-terrorism, international cruise ship terminal physical security, cargo security, and intermodal terminal operations.

*The Board recommends that civilian contract training be considered as an alternative means of providing technical training to Reservists, when that training is suitable and cost-effective.*

### **Drug Interdiction and Counterdrug Programs**

The Reserve components were assigned a counterdrug mission in fiscal year 1989. In each succeeding fiscal year, a larger portion of their training program has been devoted to this mission.

Properly planned and funded, drug interdiction missions can enhance the effectiveness and capability of the Reserve components. Such missions provide practical and meaningful opportunities for individual and small unit training. They also double the payback on training dollars. In addition to the training achieved, other agencies get additional, sorely needed support which they could not otherwise afford. Training in this area could have been significantly expanded in fiscal year 1992 had the Reserve components been adequately funded for such missions.

*The Board recommends that participation by the Reserve components in the counterdrug program be adequately funded.*

### **Training with Wartime Gaining Commands**

The ability of Reserve component units to mobilize, deploy, and perform their wartime

missions is enhanced by frequent training with their wartime gaining command.

Training with gaining commands ranged from joint training exercises to battle command training program simulation exercises, field training exercises, and command post exercises. Some of the training exercises involved real-world support of missions with gaining commands as part of the Overseas Deployment Training (ODT) Program.

The Army National Guard reported that 90 percent of company and battalion level units conducted IDT with gaining commands in fiscal year 1992. The percentage for Army National Guard Divisions training with the Active component is 30 percent. The percentage for high priority units like roundout and roundup brigades to train with their wartime gaining command is 50-60 percent.

Types of training conducted with gaining commands during fiscal year 1992 included ODT, command post exercises, staff training exercises, field training exercises, logistics exercises, joint exercises, simulation training, lanes training, Key Personnel Upgrade Program participation, and the Battle Command Training Program.

Approximately 44 percent of Army Reserve units conduct AT with gaining commands which includes units conducting their AT as part of the ODT.



Naval Air Reserve Force personnel conducted approximately 18 percent of their IDT with gaining commands while approximately 16 percent of the Naval Surface Reserve Force IDT was performed with gaining commands. Naval Air Reserve Force units conducted approximately 60 percent, and Naval Surface Reserve Force units conducted approximately 82 percent of their AT with gaining commands.

Types of training conducted at gaining commands included mobilization billet training as specified in Reserve Billet Training Requirements; direct mission support for commissioned units, such as mobile inshore undersea warfare units and explosive ordnance disposal units; and mutual support/fleet exercises by mobile diving and salvage and special warfare units. Surface and aviation units participated in law enforcement operations. Aviation training included flight training, maintenance training, mobilization billet training, and on-the-job training.

Marine Corps Reserve units are not assigned to any specific gaining command below the Marine Expeditionary Force (MEF) level. The employment concept of augmentation and reinforcement dictates that an Active component gaining command may be supported by any one of several qualified units upon mobilization. Each unit is trained and equipped to perform the augmentation or reinforcement mission. The training conducted with potential gaining commands spans the entire spectrum of air-ground operations that the Marine Corps employs.

The Air National Guard emphasizes training with gaining commands because it allows the integration of Air National Guard and active forces in supporting mission/exercise requirements. Approximately 25 percent of IDT and 44 percent of AT was conducted with gaining commands in fiscal year 1992. Most of the training is conducted during Joint and Air Force exercises.

All Air Force Reserve units spend some time training with their gaining major commands, although the actual amount of time is strongly influenced by the assigned mission. Most IDT is confined to the unit, with the exception of units aligned with the Air Materiel Command. Flying, maintenance, and aerial port squadrons

use IDT to support the Active component gaining command's routine airlift requirements.

The portion of Air Force Reserve AT spent with gaining major commands varies from 20 percent to as much as 75 percent. All aspects of training are addressed, with particular attention paid to field training exercises anticipated for fiscal year 1993.

The Coast Guard Reserve is directly involved in the operational mission areas of the Active component while training for mobilization and surge operations. The Coast Guard Reserve averages approximately 68 percent of IDT hours in direct support of the gaining command. Approximately 87 percent of ADT during fiscal year 1992 was conducted at Active component commands. Coast Guard Reserve personnel are often called to perform AT or active duty in support of special peacetime operations. Fiscal year 1993 IDT augmentation levels are expected to remain at levels similar to fiscal year 1992.

*The Board recommends that the Reserve components be sufficiently funded to permit Selected Reserve units and members to train on a regular basis with their wartime gaining commands.*

## Aircrew Training and Combat Crew Qualification

Aircrew training and combat crew qualification training opportunities are essential to attain and maintain Reserve component aircrew flying proficiency and to sustain mobilization readiness.

Individual aircrew training requirements are the same for Army aviators of all components, Active, Guard, and Reserve. Due to the force structure in the Army National Guard, 8.3 hours per crew per month (exclusive of exclusive of counterdrug operations flying hours) are required to meet minimum aircrew training program flying hour requirements.

For the Army National Guard, there is a projected shortfall of 58,000 additional flight training periods (AFTP) in fiscal years 1994 through 1998. Underfunding AFTP undermines the ability to meet individual and crew training requirements established by the aircrew training program.

The Army Reserve had sufficient aircraft and flight hours available to support flying hour requirements. However, the Army Reserve has been required to operate with less equipment than is required, thereby placing a burden on aviation support facility and troop program unit maintenance programs to meet training support requirements. Units could improve individual flight skills and conserve flight hours if flight simulators were positioned closer to Army Reserve aviation units, or if Army Reserve commands were budgeted for travel to get troop program unit aircrews to simulator locations.

Naval Reserve F-14, C-9, HH-60H, RH-53D, and A-6E aircraft shortages reduced flight training periods during fiscal year 1992. Insufficient availability of flight simulators also hampered Naval Reserve aviation training.

Marine Corps Reserve aircrews are funded for 110-130 flight hours per year per pilot. Though flight hours were sufficient for the first three quarters of fiscal year 1992, flying time expended for drug interdiction operations and other exercise participation required significant flight hours which were not reimbursed. Additional flight hours were not available in fiscal year 1992.

The Air National Guard and the Air Force Reserve flight crews have the same proficiency requirements. Active and Reserve components use the same regulations and have the same requirements to remain current. Sufficient flying hours and aircraft were available in fiscal year 1992 as was sufficient time on flight simulators.

A Congressional initiative contained a proposal that would effectively eliminate production of new Reserve component pilots through the Air Force Undergraduate Pilot Training (UPT) program. The current program has been highly successful in providing a much needed source of younger pilots for the Air Force Reserve and the Air National Guard. Though the proposed language did not become a part of the Defense Authorization Act, the Board opposes any curtailment of the Undergraduate Pilot Training Program for the Reserve components. A Secretary of Defense report is due to Congress by February 1, 1993 to justify the Air Reserve components' requirement to send personnel to UPT.

Coast Guard Reserve aviation support of the Active component was modified during fiscal year 1992. Reserve support of aviation no longer includes a flight operations component. However, Coast Guard Reservists continue to provide aviation maintenance support to the Active component.

*The Board recommends that sufficient flying hours be budgeted and authorized to meet Reserve component aircrew training and combat crew qualification requirements, and that sufficient funding be provided to Active component installation commanders to ensure that training delivery systems are available for Reserve component use during weekend and evening scheduled training periods.*

*The Board recommends that the Department of Defense oppose proposals which would limit or exclude Reserve participation in the Air Force Undergraduate Pilot Training program.*

## Overseas Training

Overseas training provides some of the most effective training opportunities for Reservists. The planning necessary for a Reserve unit to prepare and execute an overseas training mission closely parallels the planning required for mobilization and deployment. In addition to exercising mobilization, deployment, operational, or redeployment plans, overseas training opportunities strengthen actual wartime command relationships and provide deploying units with geographical orientation.

The Services reported that more than 77,000 Reservists trained in 94 foreign nations, U.S. territories, and Antarctica during fiscal year 1992. Table 5-1 provides a listing of the number of personnel and units that participated in overseas training in fiscal year 1992.

*The Board recognizes that as overseas base closures and force drawdowns continue, there may be a reduction in traditional overseas training opportunities. However, the Board notes that readiness continues to be enhanced in those units able to participate in regular training and exercises overseas. Training opportunities in other mission areas, such as humanitarian and nation assistance, could be increased and should be encouraged.*

*The Board recommends that:*

- *overseas training opportunities for Reserve component units and members be provided and adequately funded.*
- *overseas training rotation of Reserve component units and personnel be increased for medical, civil affairs, and engineering activities in nation-building programs, in support of the regional strategies of the unified commands..*

## Joint Training Opportunities

Joint training offers the opportunity for elements of more than one Service to participate together in training activities and operations. Joint Service opportunities enhance readiness and mobilization planning by increasing the experience of commanders and staffs in dealing with other Services.

Reserve components also participate in joint military education and training opportunities available from many sources including the National Defense University, the Army, Naval, and Air War Colleges, the NATO School in Oberammergau, Germany and the Defense Intelligence Analysis Center. However, spaces for such Reserve participation are severely limited.

During fiscal year 1992, the Reserve components participated in a variety of joint training activities and operations.

The Army National Guard participated in the International Training Activities Program providing training opportunities for Air National Guard medical and airlift personnel and Army National Guard engineers in Guinea and Senegal. Approximately one-seventh of Army National Guard medical units participated in medical readiness exercises (MEDRETEs) in fiscal year 1992. Over 500 medical personnel participated in 14 MEDRETEs in Central and South America in fiscal year 1992.

Army National Guard engineers completed 10 miles of critical roads and renovated a mental hospital and primary school in Jamaica. Further joint training involved the Army National Guard/Marine exchange program with the United Kingdom, Germany, France, the Netherlands, and Canada. Exercises were also

**Table 5-1**  
**OVERSEAS TRAINING**

	<u>FY91</u>		<u>FY92</u>	
	<u>Cells/Units</u>	<u>Personnel</u>	<u>Cells/Units</u>	<u>Personnel</u>
Army National Guard	678	21,200	780	25,310
Army Reserve	1,113	12,128	960	14,795
Naval Reserve	152	13,361	149	11,417
Marine Corps Reserve	18	1,090	78	7,800
Air National Guard	149	10,455	130	4,026
Air Force Reserve	175	4,905	520	18,233
Coast Guard Reserve	1	90	0	0
<b>Total</b>	<b>2,286</b>	<b>63,229</b>	<b>2,617</b>	<b>77,021</b>

Source: The Reserve components.  
Data as of September 30, 1992.

conducted with forces from Japan, South Korea, and Honduras.

The Army National Guard and Army Reserve participated in JCS Exercise FUERTES CAMINOS '92 in Honduras with 663 personnel from 8 separate units. In addition, the Army Reserve overseas deployment program provided training for over 14,000 personnel from over 80 units in Southwest Asia, Latin America, and in Pacific, Atlantic, and European areas.

Naval Reservists participated in joint operational training through support to joint intelligence centers, joint training at Army regional medical training sites, joint schools for professional military education, and on-going support to the unified commanders. HH-60H helicopter squadrons participated in four joint exercises: BLUE FLAG, DESERT RESCUE, OCEAN VENTURE, and TANDEM THRUST. Two F/A-18 squadrons participated in ROVING SANDS, and EA-6B aircraft participated in TALON SWORD, a joint exercise with the Air Force. In addition to these exercises, medical personnel participated in over 26 joint and combined exercises.

Joint training for the Marine Corps Reserve included joint training operations DISPLAY DETERMINATION and OCEAN SAFARI. Other examples include combat engineer support

battalions and assault amphibious vehicle battalions that train with the Navy in joint construction projects, amphibious, and counterdrug operations.

The Air National Guard provides the airlift for many joint and combined exercises and transports members of other Services to their training sites. Thirty-three percent of Army National Guard training is completed with Air National Guard airlift. Sixty Air National Guard medical units and aeromedical evacuation units participated in joint exercises.

Air Force Reserve units participate in multiple joint exercises throughout the year. In fiscal year 1992, participation rose to 12 exercises from 4 in 1990 and 2 in 1991. Air Force Reserve members participated in other joint exercises such as BLUE FLAG. Medical personnel participated in numerous combined and joint exercises including PATRIOT TRIAD, a tri-Service medical exercise, and TEAM SPIRIT, a joint exercise.

During fiscal year 1992, the Coast Guard Reserve continued to emphasize the importance of "jointness" during operational training. Initiatives included Multi-Service Field Training Exercises (FTXs) such as FTX COASTAL CRESCENT 92, Port Readiness Network and Port Readiness Committees,

Instructor/Administrator support to the National Defense University, and attendance at Service colleges.

*The Board recommends increased participation by the Reserve components in joint training activities, operations, schools, and training exercises.*

*The Board also recommends that opportunities for Reserve component medical, dental, and veterinary personnel to participate in joint medical readiness exercises be increased and supported.*

## Deployable Medical Systems Training

Deployable medical systems (DEPMEDS) consist of standardized equipment modules, such as operating rooms, laboratories, x-ray facilities, and patient wards, which can be used to configure varying types and sizes of hospitals and clinics.

All but three of the Army National Guard hospital units have fielded deployable medical systems. Prior to receiving DEPMEDS, units receive new equipment training at the Regional Training Sites-Medical (RTS-MED).

One hundred percent of Army National Guard DEPMEDS units train regularly with combination "minimal essential equipment for training" (MEET) at home station and DEPMEDS at Regional Training Sites-Medical.

During fiscal year 1992, 39 Army Reserve hospital units received training on DEPMEDS. Of these units, 20 received new equipment training and 19 conducted sustainment training. This training was conducted at Regional Training Sites-Medical. Additionally, 52 Army Reserve units have received their MEET sets and are using the sets for IDT. Army Reserve hospital units that have not yet received their MEET sets are continuing to train during IDT with their medical unit self-contained transportable (MUST) equipment or at local military, Veterans Administration, or civilian hospitals. Fifty-two of the Army Reserve's 84 hospitals have received DEPMEDS MEET equipment.

Army Regional Training Sites-Medical are used as joint facilities to provide additional

DEPMEDS training opportunities to the Air Force and Naval Reserve on a space-available basis.

Naval Reserve medical units do not have an on-hand DEPMEDS equipment requirement. However, personnel from all seven Naval Reserve Fleet Hospitals received training on DEPMEDS equipment at the Fleet Hospital Operations and Training Command, Camp Pendleton, or at one of the Army's Regional Training Sites-Medical during fiscal year 1992.

Training on DEPMEDS equipment for the Air National Guard is routinely scheduled with Active component Air Force and Army units. During fiscal year 1992, 1,344 personnel from approximately 36 lead units received training on DEPMEDS. All Air National Guard medical units routinely train with DEPMEDS equipment.

Air Force Reserve medical units do not have deployable medical systems, but receive DEPMEDS familiarization during their Continuing Medical Readiness Training.

*The Board recommends that Reserve component hospital units, whose mission includes deployment, be encouraged to train on the deployable medical system on a regular basis during inactive duty and annual training periods.*

## Inactive Duty Training Time

All the Reserve components acknowledge that administrative and logistics requirements reduce the time for mission-essential training. Routine tasks such as records reviews, immunizations, administrative inspections, ceremonies, and ancillary training detract from time that could be spent on job-related training.

All the Reserve components are exploring increased use of training aids, devices, and simulators to enhance limited training time.

The Army National Guard and the Army Reserve reported that 80 percent of available training time is effectively used during IDT drill weekends. This does not include time devoted to travel and administration.

The Naval Reserve reported that approximately 78 percent of IDT time available on drill weekends is used for effective training.



Thirty to 60 percent of a drill weekend in the Marine Corps Reserve is dedicated to training. Typically, this amounts to 16-24 hours of mission-oriented training. Certain units, such as armor, infantry, and artillery, which can accomplish training objectives around the clock, are able to average considerably more training hours per drill weekend.

The Air National Guard and the Air Force Reserve estimate that units spend a minimum of 80 percent of available IDT time performing specialty training or mission-related training. The remaining time is used to meet the administrative requirements normally associated with the support of these training activities.

Using available data for fiscal year 1992, the Coast Guard Reserve utilizes approximately 75 percent of available IDT for training and augmentation duties. The remaining 25 percent is devoted to unit administration.

### **Detractors to Selected Reserve Unit Training**

The Reserve components identified similar detractors to unit training, many of which have been identified in past years. The principal detractors to unit training were:

- administrative requirements,
- medical and personnel record requirements,
- maintenance requirements,
- lack of hardware and adequate training equipment,
- transit time to training areas and ranges, and
- insufficient funding for IDT travel/airlift.

All the Reserve components report that administrative burdens continued to be the major detractor to unit training.

On the average, 20 percent of available training time is needed by the Army National Guard and the Army Reserve during IDT drill weekends for tasks not directly related to unit training. This includes time devoted to travel and administrative requirements.

The Naval Reserve reported that a major training detractor was insufficient IDT travel funds to allow Reservists to travel to gaining commands for training. Lack of sufficient airlift to get members to and from their drill sites affected air units as well as those surface-augment units which rely on military airlift for IDT transport.

The Marine Corps Reserve expressed concern about transit time to exercise areas and

ranges. Many home stations do not have training areas and ranges collocated on stations.

The Air National Guard reported that requirements for non-duty related training (e.g. ceremonies, briefings, immunizations, records review, etc.) continue to consume valuable training time. Also, shortfalls in equipment items serve as a detractor to unit training.

The Air Force Reserve reported no major detractors to unit training this year.

Though the Coast Guard Reserve reported there were no major detractors to AT in fiscal year 1992, administrative burdens continue to be identified as the primary detractor of IDT. Approximately 25 percent of IDT periods is required to meet administrative demands. The lack of Full-Time Support at the unit or Reserve center pushes the workload down to the drilling Reservist.

Actions taken by the Reserve components to reduce or minimize detractors include increased full-time manning, use of computer software and hardware, streamlining of administrative requirements, and the use of automated training systems. Innovative approaches to training, including the use of simulators, are helping to reduce the amount of time spent on transportation of equipment and movement of Reservists in a field environment.

*The Board recognizes that equipment shortfalls continue to degrade readiness and are major training detractors.*

*The Board recommends that the Reserve components conduct top-down reviews of all non-job related training requirements and take action to reduce or eliminate recurring requirements.*

*The Board also recommends that the Services and their Reserve components increase efforts to reduce and control the administrative requirements on Reserve units that interfere with accomplishing the training mission during IDT periods.*

## IRR Training

Individual Ready Reserve (IRR) training is a function of mobilization requirements. The Reserve components have differing policies and

philosophies regarding the training of its Individual Ready Reserve. These differences are driven by the projected mobilization manpower requirements of the Active components. Lack of funding prevents the IRR from being a more reliable source of qualified personnel upon mobilization.

Neither the Army National Guard nor the Air National Guard has IRR programs.

The majority of Army Reserve IRR officers and enlisted soldiers who received training completed professional military education courses for their professional development, participated in, and supported Army and joint readiness exercises. Many also provided site and instructor support for the conduct of various training missions for Army Reserve Troop Program Units, competitive events, ROTC, and the United States Military Academy.

The Army Reserve trained 8,166 IRR soldiers during fiscal year 1992. IRR training funds for fiscal year 1993 have been reduced, and are not sufficient to fund the total IRR training requirement for fiscal year 1993.

Naval Reserve IRR training in fiscal year 1992 focused on AT as the primary means of maintaining and upgrading IRR skills. Priority is given to members receiving IRR reenlistment bonuses, members in bonus-eligible ratings and medical specialties. Correspondence course work and continuing medical education are secondary means of maintaining skills.

A total of 609 Naval Individual Ready Reservists received training in fiscal year 1992. Projected IRR training/funding for fiscal year 1993 will focus on IRR training for medical specialties, those personnel identified to fill Selected Reserve shortfalls, and people in bonus programs. Projected funding for fiscal year 1993 IRR training is significantly less than fiscal year 1992 funding.

The Marine Corps Reserve Counterpart Training (RCT) program was the main focus for training IRR Marines. Reserve Counterpart Training was provided to 406 officers and 789 enlisted Marines during fiscal year 1992. A portion of the Exercise Participation program also provided training for IRR Marines. The exercise participation program trained 130 officers and 35 enlisted personnel.

The Air Force Reserve did not conduct Individual Ready Reserve skill training in fiscal year 1992. There are plans to conduct limited IRR skill enhancement training for members with critical skills as part of exercise PRIME DIRECTIVE 93.

The Coast Guard Reserve did not have funding to provide training to its Individual Ready Reserve.

*The Board recommends that the Active and Reserve components review policies regarding training of the Individual Ready Reserve in light of lessons learned during Operations DESERT SHIELD/STORM. It also recommends that the Reserve components increase opportunities to participate in skill retention training for those enlisted members of the Individual Ready Reserve who possess military skills which are considered critical in the Active component or Selected Reserve.*

## **IRR Units**

Reinforcement training units (RTUs), voluntary training units (VTUs), and mobilization training units (MTUs) provide the opportunity for members of the Individual Ready Reserve and active status Standby Reserve to participate in Reserve component training. The concept for all of these units is basically the same. Most members of these units are senior officers and noncommissioned officers for whom positions in the Selected Reserve have become limited. These Reservists are attached to such units under orders, participate voluntarily in a non-pay status, and receive Reserve retirement points for their participation.

There were approximately 4,100 Army Individual Ready Reserve soldiers attached to 58 RTUs in fiscal year 1992.

The Naval Reserve VTU mission is to provide, in the event of war, national emergency, and/or when otherwise authorized by law, qualified IRR members to meet the mobilization needs of the Navy in excess of those met by the Selected Reserve. VTUs provided support to specific programs including supply, dental, facilities engineering, chaplain, law, research, public affairs, military affairs, security, air forces, air systems, and intelligence.

The Naval Reserve had 350 voluntary training units in fiscal year 1992. Two VTUs were established to accommodate the number of locally qualified officers that, as a result of promotion, exceeded authorized billets. Five VTUs were deactivated as a result of the relocation or reorganization of the parent command, or a base closure. A total of 4,280 IRR Naval Reservists were affiliated with these VTUs in fiscal year 1992.

Mobilization Training Units (MTUs) in the Marine Corps Reserve perform a variety of functions. Among these are projects undertaken for active duty commands concerning, but not limited to, the following: Joint Exercise Control Groups; MILES controllers; research studies; NBC Defense training; legal training; environmental impact study; Tactical Warfare Simulation and Evaluation Analysis System controllers; USMC historical research; Combined Arms Staff Trainer support, and drug demand reduction. There were 859 Individual Ready Reserve Marines serving in 73 MTUs during fiscal year 1992. This number approximates last year's figures.

The Air Force Reserve has six reinforcement training programs comprised of members who perform their duties individually, but who are administratively managed under traditional unit configurations. Some members of the Air Force Reserve IRR participate in the Joint Reserve Training Unit (JRTU). These members are utilized by various joint commands in support of training exercises. A total of 1,634 members were assigned to these units during fiscal year 1992.

There were 181 members in the Coast Guard Reserve's 14 voluntary training units. Like the other components, Coast Guard Reserve VTUs consist primarily of senior officers who provide the area and district commanders with research and analysis support, as well as serving as senior watch officers.

*The Board recommends that the Reserve components actively encourage participation by Individual Ready Reserve officers and enlisted personnel in reinforcement, voluntary, and mobilization training units to take advantage of the knowledge, training, and experience resident in the Individual Ready Reserve.*

## Professional Military Education

The Reserve officer professional military education (PME) programs of the Reserve components include formal schools, structured self-study, selected professional reading, symposia, and lessons learned in duty assignments. Professional military education is a key element affecting the future of the Services, and the Reserve components recognize its importance. Opportunities available for member of the Reserve components vary from Service to Service. Joint schools provide excellent, cost-saving PME. All joint schools have limited Reserve component quotas.

Table 5-2 provides a partial listing of joint and Service schools which provided PME to Reservists in fiscal year 1992.

The total number of Guard and Reserve personnel who participated in Service-unique or joint PME in fiscal year 1992 is listed below:

	<b>FY 91</b>	<b>FY 92</b>
<b>Army National Guard</b>		
RC School	21,316	35,967
AC School	6,961	5,384
<b>Army Reserve</b>		
RC School	N/A	N/A
AC School	N/A	N/A
<b>Naval Reserve</b>		
RC School	579	603
AC School	32	27
<b>Marine Corps Reserve</b>		
RC School	883	964
AC School	3	3
<b>Air National Guard</b>		
RC School	2,264	1,435
AC School	340	254
<b>Air Force Reserve</b>		
RC School	203	466
AC School	176	412
<b>Coast Guard Reserve</b>		
RC School	30	30
AC School	5	5

The National Security Management course, a nonresident course managed by the National Defense University, was canceled as of October

1, 1992, with no replacement course developed. During the period 1990-91, enrollment in the course ranged from 1,000-1,500 students with 60 percent of the students being Reserve officers. This was considered to be an excellent joint professional military education opportunity for Reserve component members. Many of these students participated in locally conducted seminars. The loss of this course has severely limited the joint professional educational opportunities available to the Reserve components.

*The Board recommends that the National Security Management course be reinstated at the National Defense University to provide joint professional military training for both Active and Reserve component personnel.*

It was brought to the Board's attention that the Military Education Coordination Conference (MECC), chaired by the Director, Joint Staff, does not include Reserve component representatives. Current alignments and relationships regarding professional military education policy prevent appropriate consideration of Reserve component requirements. Formal participation by the Reserve components in PME policy formulation and review might achieve significant enhancements in program content and direction by improving the process that controls them. The Deputy Assistant Secretary of Defense for Manpower and Personnel, in the Office of the Assistant Secretary of Defense for Reserve Affairs, has subsequently been added as an ex officio member of the MEEC and participated in the December 1992 meeting.

As suggested by the Chairman, Joint Chiefs of Staff, DoD is conducting a zero-based review of all Reserve education, including the need for joint professional military education.

*The Board recommends:*

- *that joint professional military education programs be expanded and funded to permit participation by an increased number of Reserve officers.*
- *that a formal relationship be established between the Joint Staff and the Reserve components by membership on the Military Education Coordination Conference or a similar advisory body.*

**Table 5-2**  
**PME ATTENDED BY THE RESERVE COMPONENTS**

<p><b><u>Joint Schools/Service Colleges</u></b><sup>1</sup></p> <p>Air University Armed Forces Staff College Army War College Army War College of Corresponding Studies College of Naval Warfare Defense Intelligence Analysis Center Foreign Services Institute Harvard University Executive Program Industrial College of the Armed Forces Inter-American Defense College Joint Firepower Control Course Joint Warfare National Defense University National War College NATO Joint Service Introductory School Naval War College</p>	<p><b><u>Naval Reserve</u></b></p> <p>Senior Enlisted Academy Command Master Chief Navy Leadership Sergeant Major School</p> <p><b><u>Marine Corps Reserve</u></b></p> <p>Canadian Militia Command &amp; Staff Landing Force Training Center Marine Corps Amphibious Warfare School Marine Corps Command and Staff College Naval Command and Staff School Navy-Marine Corps Lawyer Refresher Course Officer's Basic School Principles of Terrorism Intelligence Reserve Communications Officer Course Reserve Components National Security Course Reserve Correspondence Studies Reserve Forces Course, Maxwell AFB</p>
<p><b><u>Army National Guard/Army Reserve</u></b></p> <p>Advanced NCO Course (ANCOC) Basic NCO Course (BNCOC) Combined Arms and Services Staff School (CAS3) Officer's Advanced Course (OAC) Officer's Basic Course (OBC) Primary Leadership Development Course (PLDC) Senior Service College (SSC) Sergeant Major's Academy (SMA) US Army Command and General Staff Officer's Course (CGSOC) US Army Logistics Executive Development Course US Army School of the Americas Warrant Officer Advanced Course (WOAC) Warrant Officer Basic Course (WOBC) Warrant Officer Maintenance Course (WOMC)</p>	<p><b><u>Air National Guard/Air Force Reserve</u></b></p> <p>Air Command and Staff College Navy Command and Staff College Squadron Officer's School USAF Airman Leadership School USAF Command NCO Academies USAF Senior NCO Academy</p> <p><b><u>Coast Guard Reserve</u></b><sup>2</sup></p> <p>Chief Petty Officer Academy</p>

**Notes:**

1. Limited spaces are available at all Joint Schools/Service Colleges for members of all the Reserve components.
2. Coast Guard personnel are eligible to attend other Services PME courses.

Source: The Reserve components.

Data as of September 30, 1992.

## Medical Readiness Training

The Joint Medical Readiness Training Center (JMRTC) offers the Combat Casualty Care Course (C4) which is a nine-day, tri-Service course designed to prepare military medical department officers to function on an integrated battlefield situation. Personnel acquire and practice specific wartime medical skills in their combat roles, thus improving medical readiness and the ability to support combat forces.

JMRTC also provides exportable training, labeled as Phase III courses, taught in two- to four-day sessions. Completion of phases I, II, and III constitutes completion of Combat Casualty Care. Phase III courses include Advanced Trauma Life Support, Advanced Burn Life Support, Deployment Medicine (Tropical Medicine), Deployment Medicine (Combat Stress and Disaster Medicine), Combat Trauma Nurse, Combat Anesthesia, Medical Management of Chemical Casualties, and Medical Management of Biological Casualties.

A total of 3,330 Army National Guard and Army Reserve medical personnel participated in the Combat Casualty Care Course in fiscal year 1992.

The Naval Reserve sent 148 medical officers to the resident Combat Casualty Care Course; another 700 received the course through exportable training. Other training was received through the Field Medical Service School, resident and modularized courses, the Hospital Corpsman Proficiency Course; Casualty Treatment Training, and Civilian Assisted Training.

The Air National Guard reported that 17 members participated in the course in fiscal year 1992. However, medical personnel did attend other combat casualty courses during this period.

During fiscal year 1992, 41 Air Force Reserve medical officers attend the Combat Casualty Care Course. Nearly 1,000 medical personnel received the training course offered by the JMTRC mobile medical training teams and 98 nurses attended the Battlefield Nursing Course.

No Coast Guard Reserve medical personnel attended the Combat Casualty Care Course in fiscal year 1992.

*The Board recommends that:*

- *the Reserve components continue to utilize the Combat Casualty Care Course to train Reserve medical officers to function successfully in a battlefield situation.*
- *Reserve component quotas for joint medical training courses be increased to allow greater participation by Reserve health care professional personnel.*

## Flexible Readiness

"Flexible readiness" is defined in the *Fiscal Year 1992 Defense Authorization Act* to mean the allocation of resources and the adjustment of the readiness of military units based on the military threats to the United States, the amount of warning time of potential hostilities, the likelihood that particular military units will be used in a military action, and the ability of the Military Departments to transport those units to the scene of a military action.

In response to a provision in that act which directs the Secretary of Defense to submit a report containing detailed descriptions of the extent to which the concept of flexible readiness could be implemented by DoD, the Secretary of Defense has stated that certain high-priority military forces, such as strategic forces, expeditionary forces, forward-deployed forces, special operations forces and selected intelligence units, will be kept at high state of readiness, while later-deploying ground forces may be at slightly lower levels. The DoD's budget attempts to reflect the philosophy that military units should be resourced to achieve that appropriate level of readiness necessary to cope with projected threats, commensurate with each unit's employment/deployment schedules.

There are two DoD initiatives underway which have significant implications for the Reserve components: The structuring of two Army National Guard cadre divisions (units maintained at reduced structure but able to be mobilized, manned to full wartime strength, and trained in less time than would be required for newly created divisions). Forty Knox-class (FF-1052) frigates have been removed from the active fleet reflecting a reduced readiness of this capability. Thirty-two of these ships will be maintained in a decommissioned status, requiring 180 days for recommissioning and 210 days for deployment. The remaining eight ships will be used to train 32 Reserve crews for the decommissioned ships. These crews will provide the nucleus crews for the 32 frigates in the event of mobilization.

## Mobilization Authorities

Mobilization of the Armed Forces includes, but is not limited to, the following categories:

- **Presidential Call-Up.** The President may activate up to 200,000 Selected Reserve members involuntarily, for not more than 90 days, for an operational mission, without declaring a national emergency (10 U.S.C. 673b). The President may use this authority when he determines it necessary to augment Active component forces for an operational mission. The President, in cases where he determines such action necessary, may extend the original 90-day period for not more than an additional 90 days. The service of units so ordered to active duty may be

terminated by order of the President or law. Use of this authority requires a Presidential executive order and notification of Congress within 24 hours.

- **Partial Mobilization.** Expansion of the Active component forces resulting from the order to active duty pursuant to Title 10 U.S.C. 673, of not more than one million members of the Ready Reserve (Selected Reserve personnel and units and members of the Individual Ready Reserve) for a period not to exceed two years. This authority requires Presidential declaration of a national emergency, an executive order, and subsequent notification of the Congress.
- **Full Mobilization.** Expansion of the Active component forces by the order to active duty pursuant to Title 10 U.S.C. 672 (a), of all Reserve components, including those in the Standby Reserve and the Retired Reserve, for the duration of a war or national emergency declared by Congress, and for a period of up to six months thereafter. This authority requires passage of a public law or joint resolution by the Congress declaring war or national emergency.
- **Total Mobilization.** Generate wholly new forces in addition to the existing force structure, and marshal all resources required to create and sustain them (10 U.S.C. 672). This authority requires passage of a public law or joint resolution by the Congress declaring war or national emergency.

*The Board recommends that:*

- whenever possible, Reserve component units with Active component affiliations be utilized as intended in support of operational missions.
- the Services share and review information about each other's call-up policies and procedures to develop as much uniformity as feasible.
- Reserve component units be called up sufficiently in advance of deployment to provide for necessary training to ensure combat effectiveness and reduce casualties.
- units to be called up under 10 U.S.C. 673b be alerted as far in advance of the call-up

as practical so that preparations can commence.

- a review be conducted of existing mobilization authority legislation to identify amendments that should be enacted to ensure the effectiveness of future mobilizations and demobilizations of the Reserve components.

## Unit Integrity

To the maximum extent practicable, units should be called to active duty as complete units. However, there may be occasions when an entire unit may not be needed. Calling unit cells, rather than entire units, is a departure from a long-standing Department of Defense policy (see DoD Directive 1235.10, *Mobilization of the Ready Reserve*, paragraph F.7) that members of the Selected Reserve would be called to active duty only as units. Unit members were recruited with that understanding. If operational requirements dictate the activation of cells, rather than units, there should be advanced planning and notification to affected units and personnel.

If not designed, pre-planned, and institutionalized in the force in peacetime, the creation of ad hoc units with derivative UICs makes the mobilization process more difficult. It depletes existing units, lowering their readiness and, possibly, making them non-deployable. Pre-planned and well-designed sub-units with derivative UICs can be cost effective, can be more easily made combat ready, and can facilitate the mobilization process.

*It is the position of the Board that, to the maximum extent practicable, Reserve component units should be called to active duty as complete units to maintain their unit integrity and readiness. The Board recommends that corrective action be taken to minimize the need for cross-leveling Reserve component units and personnel upon mobilization.*

*The Board also believes that as much advance notification as possible should be provided to Reserve component units and individuals who are called to active duty.*

*The Board recommends that the potential need to mobilize only parts of some types of*

*units be identified in advance for various stages of mobilization and that the affected unit personnel be notified accordingly.*

## **Proposed Changes to Mobilization Authorities**

Lessons learned from Operations DESERT SHIELD/STORM have resulted in numerous proposals to change the provisions of Title 10 U.S.C. 673.

Recent legislation provided authority to the Secretary of Transportation to involuntarily call to active duty Ready Reserve members and units, as necessary, for operational missions, for up to 30 days in any four-month period, and up to 60 days in a two-year period. The utility of this authority was demonstrated by the recent immediate response to Hurricane Andrew when Coast Guard Reservists were called to augment the Coast Guard.

*The Board recommends that 10 U.S.C. 673 be changed to provide authority for the Secretary of Defense to call members and units of the Ready Reserve to active duty for contingency missions.*

Proposed changes to Title 10 U.S.C. 673b, based on lessons learned from Operations DESERT SHIELD/STORM, include amending Title 10 U.S.C. 673b to (1) extend the period of time Reservists can be ordered to active duty from 90 days plus an additional 90 days to 180 days plus 180 days and (2) enable the Secretaries of Defense and Transportation (Coast Guard) to order up to 25,000 members of the Selected Reserve to active duty to support immediate crisis response actions. If approved by Congress, this change will enable the Services to activate Selected Reservists, and fully prepare Reserve units (particularly combat units), for longer-term operational missions.

## **Mobilization and Combat Readiness Exercise and Evaluation Programs**

All Reserve units, with few exceptions, are required to conduct some level of mobilization and combat readiness evaluations each year.

SORTS is the current JCS measurement of readiness, used to indicate a unit's resource and training status at a particular time. It is not regarded as an accurate or complete measure of

a unit's readiness.

The Army Forces Command sets forth policy for training of the Army Reserve and the Army National Guard, and requires the establishment of training criteria, oversight, and evaluation of training in the Reserve component.

The Operational Readiness Exercise (ORE) program is being refined and utilized to test and evaluate the Total Army wartime mission preparedness. As part of the initiatives, units will continue to be tested in mobilization and deployment readiness. Additionally, regional readiness assessments are nationally-directed, regionally-focused briefings to determine readiness of major commands.

The Mobilization Station Field Training Exercise is an exercise to be conducted by one mobilization station each year. The intent of the exercise is to evaluate the installation's capability to accomplish its mobilization mission during the initial influx of mobilized soldiers and units.

Limited Notice Exercises test and evaluate the capability and preparedness of called-up units to alert, assemble, and accomplish home station activities in preparation for movement to a mobilization station. Local mobilization exercise programs provide the continental United States Army commander with on-the-ground information on units which he believes need to be exercised.

All Naval Reserve units received mobilization training and readiness evaluation during fiscal year 1992. There were no indications of discrepancies between the readiness of Active and Reserve component units.

All Naval Reserve commands are tasked to monitor subordinate commands/units to ensure mobilization training has been incorporated into consolidated training programs. Minimum training includes one annual notification exercise to ensure each member is thoroughly indoctrinated in mobilization procedures; one complete mobilization exercise, which must include, at a minimum, a telephone recall; Reserve Training Support System reporting procedural tests; simulated exercise of transportation, messing and berthing, and the receiving and processing of personnel.

Combat readiness of Naval Reserve units is based on personnel and training readiness and includes personnel readiness, the percent of authorized billets filled; and mobilization training readiness, the average percent of mobilization training completed.

The Marine Corps Reserve uses the Mobilization Operational Readiness Deployment Test (MORDT) to evaluate unit mobilization readiness. The MORDT consists of a no-notice recall of Reservists to the Home Training Center (HTC) on a Friday evening followed by administrative and logistics inspections. There are two types of MORDTs. A MORDT-and-Stay refers to the unit remaining at the Home Training Center and processing 100 percent of the unit personnel for mobilization. A MORDT-and-Go consists of processing about 10 percent of the unit personnel to test mobilization plans, and then the actual movement of the unit to a major base or station. The unit trains at the base during the weekend and returns to the home training center on Sunday. Due to the high cost of the MORDT-and-Go, only two units are evaluated in this manner each year.

Combat readiness is evaluated using the Marine Corps Combat Readiness Evaluation System. The Marine Corps Combat Readiness Evaluation System is an interactive system which evaluates a unit's ability to perform individual and collective tasks which have been determined to be mission essential. Each Selected Reserve unit is evaluated by the Marine Corps Combat Readiness Evaluation System every three years. Marine Corps Combat Readiness Evaluation System standards and evaluation methodology are identical for Active and Reserve component units.

The mobilization and combat readiness of Air National Guard and Air Force Reserve units are regularly evaluated in accordance with the Air Force Inspection System. Active and Reserve component units are evaluated against identical standards using the same procedures. Operationally oriented "Operational Readiness Inspections" are given by the gaining major command and specifically address the unit's ability to mobilize and deploy, as well as combat readiness and wartime operation. Management-oriented "Unit Effectiveness Inspections", now referred to as "Quality Air Force Assessments," evaluate the unit's

leadership, organization, and mission capability. During fiscal year 1992, the Air National Guard evaluated 77 units, and the Air Force Reserve evaluated 23.

The Coast Guard Exercise Program is the principal means for evaluating the Coast Guard's mobilization and combat readiness. Reservists actively participate in a variety of exercises, such as Command Post Exercises (CPXs), Field or Fleet Training Exercises (FTXs), and Mobilization Exercises (MOBEXs) with the Active component.

The concept of "Reserve unit readiness" does not apply to most Coast Guard Reserve units. Instead, the Active component commands tasked with operational and support missions participate in exercises with Reserve component augmentation, and overall readiness is evaluated. With the exception of the three port security units (PSUs), Coast Guard Reserve units are primarily administrative and training entities which prepare Reservists for mobilization at Active component commands.

#### *The Board recommends that:*

- *SORTS and ancillary readiness systems continue to be updated to accurately reflect the impact of peacetime support on unit and individual warfighting reactions.*
- *the Active and Reserve components enhance mobilization and combat readiness exercise and evaluation programs to improve mobilization and combat readiness.*
- *the Services integrate the demobilization phase into mobilization readiness exercise planning and increase demobilization exercise play.*

#### **Factors Limiting Mobilization Readiness**

The Reserve components achieved an unprecedented level of readiness in fiscal year 1992. However, all Reserve components acknowledge that further readiness improvements are needed in the area of personnel and equipment.

Critical factors limiting Army National Guard readiness include the reconstitution of

equipment from Operations DESERT SHIELD/STORM, Army-wide shortage of crucial equipment for STANDARD BEARER units, the identification of equipment to be cross-leveled to high-priority units, shortage of school seats, the priority for soldiers in STANDARD BEARER units, and the routine turnover of personnel.

Actions are underway to ensure all Army National Guard Contingency Force Pool, roundup, and roundout units are fully manned, totally equipped, trained and validated to standard. In addition, the 38 highest priority Army National Guard contingency force pool units have been designated as operational units. These units are being packaged to be available within seven days of an alert, in a volunteer status, to support any future President-directed deployment for contingency operations.

The major factors limiting Army Reserve mobilization readiness continue to be personnel and equipment shortfalls. The Army Reserve continues to report critical shortages of personnel in the following areas: administration, health care, chemical operations, general engineer, mechanical maintenance, military intelligence, petroleum and water, signal maintenance, signal operations, supply and services, and transportation. Increases in the numbers of accessions from the Active component may reduce shortages in these categories.

The Naval Reserve reported that factors limiting readiness in fiscal year 1992 included insufficient IDT travel funding, additional identified Reserve Billet Training Requirements, the inability to effectively train cross-assigned personnel, shortfalls in certain occupational skill specialties, flight-hour funding shortfalls, aircraft transitions, and lack of helicopter shipboard deck time for landing qualifications.

The most critical factors limiting Marine Corps Reserve mobilization readiness are separate Reserve and Active administration and pay systems, lack of interoperability in aircraft between Reserve and Active components, skill mismatch/non-qualification due to inter-unit transfer personnel and prior service accessions, and equipment shortages.

There are no critical factors limiting Air National Guard and Air Force Reserve mobilization readiness. As shown in Operations

DESERT SHIELD/STORM, all Guard and Reserve units mobilized and deployed within the established time criteria.

Funding for Coast Guard Reserve has been reduced nine percent since fiscal year 1991. As a result, strength has been cut by 13 percent, and Reservists will provide 54,000 fewer days of augmentation to the Active component. Additionally, a lack of unit training and operational experience for the three deployable Port Security Units was identified as a primary factor limiting their mobilization readiness.

*The Board believes that the use of simulation devices and trainers will assist in overcoming some equipment shortages for training.*

*The Board recommends that the Active and Reserve components take appropriate action to correct those factors identified during Operations DESERT SHIELD/STORM as limiting to Reserve component mobilization readiness.*

## Physical Fitness

The physical fitness of Reserve component members is important to the combat and mobilization readiness of their Reserve component units. Reservists must be physically fit for world-wide duty.

While the Active components may have special programs, facilities, and counseling capabilities to assist their members in attaining and maintaining physical fitness, members of the Reserve components have somewhat limited assets to assist them in meeting readiness standards. Reserve component leaders must realize that physical fitness is an important readiness aspect, and they must incorporate sufficient educational guidance and adequate training and testing into training schedules.

Service standards for medical and physical fitness apply to the Reserve components. Both Active and Reserve components have policies and programs for testing the physical fitness of their members. These vary from Service to Service, and range from annual or semi-annual timed run/walks to more rigorous fitness tests. Failure to meet fitness standards exists in all the Services, and will impact future mobilizations.

*The Board recommends that physical fitness of Reserve component members continue to receive strong leadership attention.*

## Dental Readiness

The dental readiness of members of the Selected Reserve is important because the optimum goal is to be able to deploy some Reservists within as few as 10 days from call-up. This is not possible if they do not meet the minimum dental standards for deployment. Dental readiness is increasingly important with a military strategy of rapid and flexible force projection for contingency operations where medical and dental assets in theater may be austere. An additional concern is the lack of dental coverage for dependents of Reserve component members called to active duty for less than two years.

Members of the Reserve components are currently responsible for maintaining their medical and dental fitness at their own expense. No formal policy has been established stating the level of dental readiness that members of the Reserve components are expected to maintain. A DoD-wide policy is needed to establish the required level of dental readiness.

Since many Reserve component personnel do not reside near military treatment facilities, and because of the limited capacity of many treatment facilities, a government-sponsored dental insurance program is needed for members of the Selected Reserve and possibly for early deploying members of the IRR.

There are numerous dental units in the Selected Reserve, some of which have available capacity. However, current law precludes Selective Reserve dental professionals from providing dental treatment to members of the Selected Reserve during inactive duty training periods, except in emergencies.

*The Board recommends that the Department of Defense consider a government-sponsored dental insurance program for members of the Selected Reserve and possibly for early-deploying members of the Individual Ready Reserve.*

*The Board additionally recommends that*

*the Department of Defense request legislation to permit members of the Selected Reserve to receive dental care in military facilities on a space-available basis.*

*The Board also recommends that the existing requirement for two-year orders be rescinded, so that dependents of mobilized Reservists may receive dental care under the Delta Dental Plan.*

## Readiness Improvement Initiatives

The following ongoing Department of Defense and Service training initiatives and programs are underway or are being developed to improve the mobilization and combat readiness of the Reserve components:

**Overseas Deployment Training (ODT)-** Allows units to practice their wartime skills, assist in humanitarian assistance programs, and effectively support the Commander-in-Chief's programs.

**Training Readiness Measurement Model-** A joint DoD and JCS effort for development of a design for a Training Readiness Measurement Model. The goal of this model is to provide consistent and verifiable information about units' training status, focusing on time and other resources required to achieve designated capability levels.

**SORTS Revision-** Improvements are underway that will more accurately capture the status of the reporting units to accomplish their wartime mission. SORTS will prioritize the requirements for data in support of crisis planning, deliberate planning, and Service organizing, training, and equipping tasks.

**Time-Phased Force Requirements Model-** The Office of the Assistant Secretary of Defense for Reserve Affairs has developed a concept to model total time-phased requirements for Reserve forces to support contingency operations. From the model, a time-phased Reserve component mobilization requirements system can be developed and could be incorporated into the deliberate planning and crisis planning process. This would enable the Joint Staff to identify the total, time-phased requirement for Reserve forces to each Service, thereby providing insight for the National Command Authority into when

Reserve forces need to be activated and the consequences of not activating those forces when required.

**Reserve Officer Exchange Program**-The only exchange program including members of all National Guard and Reserve components in each of the four Services. In fiscal year 1992, the U.S. exchanged with 21 German officers and 20 British officers.

**Contingency Force Pool (CFP)**-The Army's CFP consists of a few hundred (mostly Combat Support and Combat Service Support) units that would be needed early in any future regional contingency. By identifying these particular units in advance, their resource status can be closely monitored at all echelons. Priority of resourcing would go to Contingency Force Pool units.

**BOLD SHIFT**-A Forces Command initiative to improve Active component/Reserve component readiness thereby enhancing the Total Force for the evolving National Military Strategy. BOLD SHIFT focuses training assistance and management attention on certain high-priority Army Reserve and Army National Guard units. Units in 45 states and territories are participating in BOLD SHIFT.

**STANDARD BEARER**-An Army National Guard initiative designed to develop and institutionalize a set of programs to enhance readiness within the Army National Guard. Seven roundup/roundout brigades and 175 Contingency Force Pool units are participating in STANDARD BEARER.

## Demobilization Programs

Operations DESERT SHIELD/STORM highlighted the areas for attention in both mobilization planning and demobilization.

DoD has completed a major revision of basic guidance on Reserve mobilization-DoD Directive 1235.10, *Activating, Mobilizing, and Demobilizing the Reserve Components*. The new Directive, which will be coordinated throughout the Department of Defense,

provides specific guidance to the Joint Staff and Military Departments for accessing and integrating Reservists into the Active force. This new directive stresses equitable treatment for activated Reserve units and members and contains, for the first time in a DoD directive, a section devoted to demobilization policies and procedures.

Separate pay and personnel administrative systems delay the mobilization and demobilization process for units and individuals. Pay problems are still being resolved more than a full year after Operations DESERT SHIELD/STORM ended.

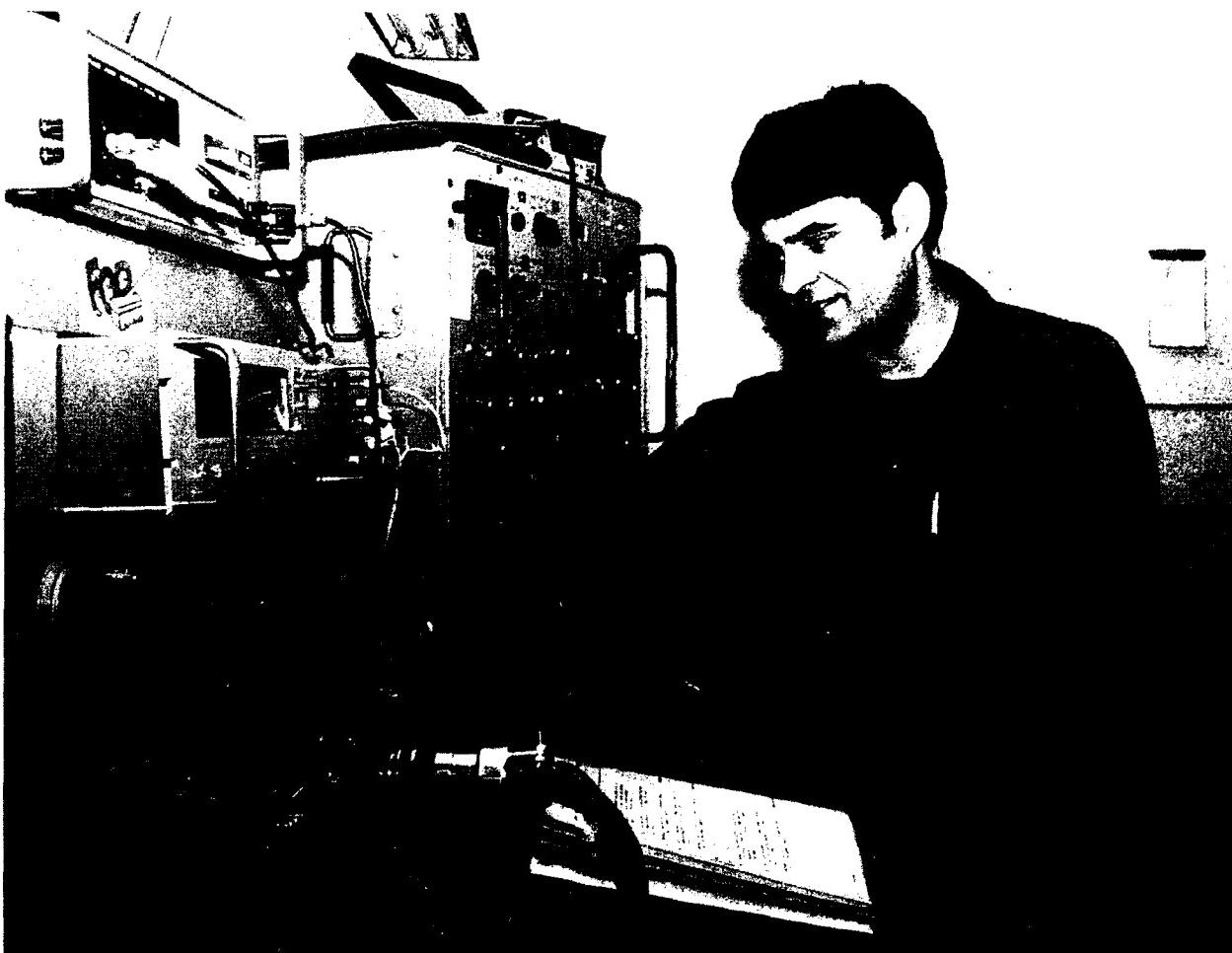
*The Board believes that, subject to operational requirements, members of the Reserve components should be demobilized as soon as possible following the cessation of hostilities. The Board also believes that demobilization should be planned to the same degree of detail as mobilization, from the notification of a planned release date to the completion of outprocessing.*

*The Board recommends that:*

- *outprocessing procedures be institutionalized to out-process Reserve component members as quickly and efficiently as possible.*
- *to the maximum extent possible and consistent with operational requirements, Reserve component units, and the members of such units called up as units, should be reconstituted as units prior to their departure from theater.*
- *programs be established to assist the smooth transition of Reserve component members, to include members of the Individual Ready Reserve and retirees, back to civilian life upon release from active duty following demobilization.*
- *all possible efforts be made to provide returning Reserve component personnel with Selected Reserve assignments after demobilization.*



# Equipment 6



*"Today, having new and modern equipment in the Guard and Reserve is not the paramount issue. As our equipment posture becomes both complete and modern, our principal challenges are maintenance, supportability, and storage. We must address these challenges head on."*

*John B. Rosamond  
Deputy Assistant Secretary of Defense for Reserve Affairs  
(Material and Facilities)*

## **General**

Equipment modernization and modification programs continued in every major Reserve component weapon system during fiscal year 1992. It is imperative these programs continue so that Reserve components can be effective elements of the Total Force.

## **Department of Defense Policy**

The Department of Defense's (DoD) policy is based on the "First to Fight, First to be Equipped" (FFFE) principle. Originally recommended by the Board, this policy is intended to insure that units deployed first in time of a crisis are adequately equipped. It gives manning, training, and equipping priority to early-deploying units, even if the early-deploying units are Reserve forces. As a result of this policy, some Reserve units, by necessity have a higher priority for manning, equipment, and training than some Active units.

It is DoD policy that the Reserve components of each Military Department will be equipped to accomplish all assigned missions. DoD policy also dictates that Reserve components have an equipment procurement and distribution program which is balanced, responsive to mission requirements, and sustainable. DoD's long range goal is to fill the Reserve components' wartime equipment requirements in accordance with the Total Force Policy. The distribution priority of new and combat-serviceable equipment, with the associated support and test equipment, is given to units scheduled to be deployed and/or employed first, regardless of component. Equipment priorities for Reserve component units are established by same methods as Regular units having the same mission or deployment/employment requirements.

The Army Equipping Policy is based on relative priorities. Army National Guard and Army Reserve equipment is fielded under current Army policy using the Department of the Army's Master Priority List (DAMPL). Continued "out of DAMPL sequence" distribution of selected equipment has prevented Army National Guard and Army Reserve units from returning to their prewar equipment readiness posture. Equipment from the Army's drawdown assets is being redistributed under the DAMPL.

To the extent that priorities are valid, first to fight Army National Guard and Army Reserve units are generally being equipped first. Exceptions to the application of the FFFE policy do occur; some are based on valid economic or support considerations, others are not. Examples of unsupportable exceptions include: parent Active component divisions being issued the A2 versions of the Bradley while their roundup and roundout brigades receive basic models; Active component units being fielded with M9 Armored Combat Earthmovers and Army National Guard units were not; and parent Active component units are being outfitted with Single Channel Ground/Airborne Radio Set (SINCGARS) radios while their roundout units retain incompatible old series radios. The Army National Guard and the Army Reserve continue to challenge equipment distribution plans which do not follow FFFE criteria.

The Naval Reserve is equipped under a policy of horizontal integration which, in most cases, provides it with the same major front-line equipment and weapons systems in use by the Active component. However, some exceptions to this policy do exist. The Naval Reserve continues to operate and maintain 97 percent of the restricted A-6E aircraft while the majority of the unrestricted aircraft remains assigned to the active forces. Without additional unrestricted A-6E aircraft, the readiness of Naval Reserve A-6 squadrons will be below the minimum acceptable readiness level.

The Marine Corps' policy to field new equipment "horizontally" in the Active and Reserve components ensures equipment commonality throughout the Total Force without regard to a unit's pre-mobilization tasking in contingency plans. Selected Reserve units are not pre-designated as "early-deploying" or "follow on" since all are considered "M-Day" assets. Units which are to deploy early and follow on units will either fall in on existing Active component equipment or be equipped from stores and/or Maritime Prepositioned Squadrons.

In the Air National Guard and the Air Force Reserve, the equipping of units is based on the national strategy and programmed by the Air Force Resource Allocation Process in which the Air National Guard and Air Force Reserve are full and equal partners. This policy improves

the readiness and mobilization capability of the units that will be the initial and primary source of augmentation forces in any emergency requiring a rapid and substantial expansion of Air Force combat capability. The Air National Guard and Air Force Reserve are satisfied that their units are being equipped on a pro rata basis with Active component counterparts based on the "first to fight, first to be equipped" DoD policy.

## Equipment Modernization

Table 6-1 shows examples of Reserve component major equipment conversions that occurred in fiscal year 1992.

One of the keys to increasing readiness in the Reserve components is to raise the expectations and motivations of the personnel. To do this, the Reserve components must

**Table 6-1  
FISCAL YEAR 1992 MAJOR EQUIPMENT CONVERSIONS**

### Army National Guard

- 1 Battalion from 105MM towed to 155MM Self-propelled artillery
- 1 Battalion from 155MM/8" towed to 8" SP (3X4 design)
- 1 Battalion from 8" (3X4 design) to Multiple Launched Rocket System (MLRS)
- 1 Battalion from 8" (3X4 design) to 155MM towed artillery
- 1 Battalion from M1 to M1A1 tanks
- 2 Battalions from M60A3 to M1IP
- 4 Battalions from UH-1 to AH-64 helicopters
- 3 Companies from UH-1 to CH-47D helicopters

### Army Reserve

- 3 Aviation companies from U-8's and T-42's to U-21's
- 1 Aviation battalion from U-8's and T-42's to U-21's
- 1 Attack helicopter battalion from AH-1F's to AH-64's
- 2 Helicopter companies from CH-47C's to CH-47D's
- 1 Combat engineer corps battalion to M113A3 armored personnel carriers
- 10 Engineer fire fighting teams to new fire trucks
- 13 Medical units received deployable medical sets (DEPMEDS)
- 35 Quartermaster, ordnance, and transportation units to LUPS
- 2 Transportation boat companies from LCU-1400's to LCU-2000s
- 1 Training division from M60A3' to M1 tanks
- 4 Regional Training Sites-Maintenance received one each M2 Infantry Fighting Vehicle and M3 Cavalry Fighting Vehicle

### Naval Reserve

- 1 Squadron completed transition to F/A-18's
- 2 Squadrons from SH-3H's to SH-3H SLEP helicopters
- 1 Squadron completed transition to SH-2F's
- 3 Squadrons from P-3B's to P-3C's

### Marine Corps Reserve

- 2 Squadrons from A-4's to F/A-18A's
- 1 Squadron from AH-1J to AH-1W
- 1 Squadron received 2 KC-130T's

### Air National Guard

- 1 Squadron from F-4E's to F-15A/B's
- 2 Squadrons from F-4E's to F-16C/D's
- 5 Squadrons from A-7D/K's to F-16C/D's
- 1 Squadron from OA-37's to F-16A/B's
- 1 Squadron from A-10A's to a mix of A-10A's and OA-10A's
- 1 Squadron from RF-4C's to F-4G's
- 1 Squadron from A-7D/K's to KC-135E's
- 1 Squadron from F-4E's to KC-135E's
- 2 Squadrons from KC-135E's to KC-135R's
- 1 Squadron from RF-4C's to KC-135R's
- 1 Squadron from C-130B's to C-130H's
- 1 Squadron from C-130A's to C-141's

### Air Force Reserve

- 1 Squadron from C-130B's to C-130E's
- 1 Squadron from C-130B's to C-130H's
- 1 Squadron from HH-3's to MH-60G's

### Coast Guard Reserve

No major conversions

Source: The Reserve components.

Data as of September 30, 1992.

ensure their equipment is state-of-the-art equal in quality with that used by the Active components. Equipment required to meet the needs of the gaining major commands is being provided to all Active component and Reserve units tasked to support them. With the current drawdown of Active forces, there is a continuous upgrade of Reserve component equipment.

Each of the Services have continued to modernize their Reserve components through equipment conversions. The Army has ensured that National Guard and Reserve units received modern equipment through the transfer of numerous new items of equipment to include armored personnel carriers, tanks and helicopters.

Seven Naval Reserve squadrons completed the transition to more modern aircraft. Two additional Naval Air Reserve squadrons are scheduled to make the transition to the F/A-18A aircraft in fiscal year 1994, with the transfer of aircraft from the Active components. However, a full complement of support equipment is not programmed to be included in the transition since the requirement for it continues to remain in the Active component. A three-year lead time for acquisition of the required support equipment has been indicated, but this requirement has not yet been funded for the Reserve squadrons.

Naval Reserve surface hardware units (construction battalions, cargo handlers, MIWU, fleet hospitals, etc.) are equipped with the same equipment as their Active counterparts. Acquisition of full allowances to support those missions has not been fully funded. For example, 13 percent of Reserve Construction Battalions and 33 percent of Reserve regiments do not have the majority of their required wartime equipment. Approximately \$58 million would be required to fully equip them. Delays in acquisition of adequate support equipment could significantly restrict the quality and quantity of adversary support available to the fleet. Unless fully resourced, not all surface Reserve units can be deployed.

Modernization of the Air National Guard and Air Force Reserve is continuing. During fiscal year 1992, twenty-one squadrons completed the transition to newer aircraft, and newer models of F-16 and F-15 fighter aircraft are

replacing older tactical and air defense fighters. In current budget reduction actions, the Air Force decided to reduce the near-term tactical wing growth target below 40 tactical fighter wings, and to make reductions in new F-16 and F-15 procurement. The cost of operating Air Force combat fighter units will become an increasing factor in future fighter beddowns. The current Congressional direction is to increase reliance on the Air National Guard and Air Force Reserve to perform the air combat mission with modern equipment.

Newer model C-130 tactical airlift aircraft have been procured, through the Congressional "Add" program, to replace older models in the Reserve components. A major concern has been the lack of available spares and support equipment for these conversions. For the first time since 1986, the fiscal year 1993 Congressional Add for new C-130's for the Reserve components included adequate funding for spare parts and support equipment.

Another older weapon system of concern is the AC-130 gunship. The older vintage AC-130A aircraft continues to be maintained in the Air Force Reserve inventory. These older gunships are programmed to remain in the Air Force Reserve until the Active component units receive the newer AC-130U model aircraft. The Active component gunship units are programmed to retain all of their present support equipment which is common with the newer AC-130U aircraft. This is expected to create an equipment shortage for the Air Force Reserve upon conversion to the AC-130H gunship.

Equipment modernization is generally not an issue in the Coast Guard Reserve. Equipment required for surge operations is provided by Active component Coast Guard commands. The deployable port security units (PSUs), which are approximately five percent of the Coast Guard Reserve, are the only exceptions. The modernization of the Coast Guard Reserve PSUs has not been affected by the recent budget reductions.

## Recent Equipment Purchases and Transfers

Table 6-2 shows examples of recent Reserve component major equipment purchases and transfers in fiscal year 1992. Some items were

**Table 6-2**  
**RECENT EQUIPMENT PURCHASES AND TRANSFERS**

	Purchased <sup>1</sup>	Transferred		Purchased <sup>1</sup>	Transferred
<b>Army National Guard</b>					
AH-64 Apache Attack Helicopter	44	1	Naval Reserve		
Digital Group Multiplexer Equipment (Bn Set)		1	A 6E Aircraft		3
Elect Shop Shelters	171	1	Data Link Sets/F-14A Aircraft	20	
HAWK Air Defense System (Bn Set)		1	F/A-18A Aircraft		8
HEMTT	59		FFT Frigates		8
HEMTT Truck	29		Forklifts	3	
HEMTT Wrecker	154		HH-60H Helicopter		1
Howitzer, Medium, Towed 155MM, M198	34		P-3C Aircraft		10
Light TACFIRE (Bn Set)		1	Patrol Boat, Light (PBL)		4
M1A1 Tank	60	120	Portable Pontoons (SEABEE/Cargo Units)	177	
Mobile Subscriber Equipment (MSE)(Bn Set)		4	Surveillance Vans (MIUW Units)	9	
Multiple Launch Rocket System sets	1		Thermal/Visual Imaging Systems	4	
Night Vision Goggles	2,418		Video Tape Recorders (A-6E Aircraft)	8	
Power Supply	718		<b>Marine Corps Reserve</b>		
Radios	2,765		M1A1 Main Battle Tanks	16	
TAMMIS	82		F/A-18 aircraft	20	
Truck, 5 Ton	152		AH-1W helicopters	8	
Truck, Cargo	47		KC-130T aircraft	2	
Truck, Tractor	52		<b>Air National Guard</b>		
UH-60 Blackhawk Utility Helicopter	10		C-130H aircraft	12	
<b>Army Reserve</b>			C-141B aircraft		4
4K Forklift	115	24	Digital Wide Band Radios	15	
5 Ton Trucks	2,137	880	Electronic Telephone Switches	6	
5K Gal Trailers	200	176	F-15A/B aircraft		18
6K Ammo Handler	0	66	F-16A/B aircraft with ADF mod		18
7.5T Crane	0	15	F-16C/D aircraft		126
AN/AVS-6	457	133	F-4G aircraft		18
AN/PVS-7	3,001	0	KC-135E aircraft		20
AN/VDR-2	1,890	0	KC-135R aircraft		30
Armored Personnel Carriers	9	11	Night Vision Goggles	110	
Battery Computer Systems	22	8	Radars	2	
DEPMEDS (MEET)	0	13	<b>Air Force Reserve</b>		
FISTV	14	0	BMM Videotape recorder	196	
Forklifts 6K/10K	0	15	Base Information Digital Distribution System	1	
Heavy Equipment Transporters	0	13	C-130H aircraft	15	
HEMTT	273	2	C-141B aircraft		7
LCU 2000 Landing Craft Units	0	4	Cartridge Interface Device	16	
M1062	0	198	F-16 Engine Upgrade (F100-PW220E)	31	
Machine Guns	56	0	Firearms Training Simulator	8	
Medical Sets	1,136	67	H-60G aircraft		16
Mortars	150	0	Night Vision Goggles Test Sets	5	
PADS	4	0	Scope Shield II Radios	140	
Rockcrushers	5	0	Strategic/Tactical Automated		
RTCC	0	23	Mission Planning System	1	
Shop Sets	89	12	TF33 Engine Adapter	1	
SINCGARS	50	0	<b>Coast Guard Reserve</b>		
STE/ICE	0	173	No major end-items purchased or transferred during FY92.		
TMDE	114	67			
Tractors M915/M916	148	52			
Trailers M870A1/M871/M872	465	297			
USM-485 TS	0	23			
Vehicles (HMMWV)	937	343			
Well Drilling Set	5	0			

Note:

- All items purchased with DPP funds except Air Force Reserve. Reserve component funds were used for Air Force Reserve purchases.

Source: Reserve components.

Data as of September 30, 1992.

purchased directly from manufacturers through the Dedicated Procurement Program (DPP), while others were transferred directly from the Active components.

New and modern equipment continues to enhance Reserve component readiness and capability to mobilize. It reduces costs for repair and parts stockage for older, non-supportable equipment. It also allows Reserve component personnel to train with and maintain equipment they will utilize during mobilization in support of the Total Force.

## Modification Programs

Due to declining defense budgets, the Reserve components have experienced increasing difficulty obtaining equipment modifications that enhance capability. Such modifications to existing systems are necessary to increase survivability, mission capability, reliability, maintainability and safety. All new requirements, whether Active or Reserve, must compete for the scarce resources available. These requirements are normally funded through offsets to existing programs. Because the budgets of the Reserve components are too small to offset costs of major equipment modifications, these initiatives require the support of the gaining Major Commands to provide offsets in the funding process. Without this support, the proposed modifications are not likely to be funded for most of the Reserve component equipment.

In fiscal year 1993, the Army National Guard and Army Reserve will continue providing support to the Congressionally-directed depot conversion program of M113A2 armored personnel carriers to M113A3s carriers. The Army National Guard was planning to convert 461 M113A2's to M113A3s Armored Personnel Carriers beginning in fiscal year 1992. The program was delayed due to a \$38 million shortfall in Inspect & Overhaul (I/O) dollars. In the past, the Army provided funds to the Active Army facility performing the work. However, the Army stopped this procedure in fiscal year 1992, thereby making the Army National Guard responsible for the cost. The Army National Guard plans to convert these systems as soon as money is available, since the M113A2 armored personnel carrier is an older system that cannot keep up on the battlefield with the Abrams tank nor with the Bradley Fighting Vehicle. No other

fiscal year 1992 depot modifications were programmed in the Army National Guard.

Most other equipment modifications in the United State Army Reserve in fiscal year 1992 were minor product improvements which would improve performance or eliminate safety hazards to personnel and equipment. The Army Reserve obtained approximately \$500 million in equipment assets not previously programmed. Equipment gains were primarily through the deactivation of like-type Active component units and further realignment of units which increased unit priorities.

Horizontal integration of fleet assets into the Naval Reserve continues to be the cornerstone of effective mobilization. Several Naval Reserve equipment modification programs were delayed or eliminated in fiscal year 1992. They included the P-3B aircraft, Navigational Information Display and the Global Positioning System which were delayed until fiscal year 1993. Also included were the P-3C aircraft radar, Digital Magnetic Anomaly Detection System, E-2C OMNI modification, and several modifications to the A-6E aircraft.

In the Naval Reserve units, the F-14A/B Structural Maintenance and Survivability Block modification program excludes aircraft assigned to the Reserve components. This upgrade provides time compliance requirements kits, and is vital to maintaining an F-14 inventory capable of supporting planned Naval force structure through the year 2010. In addition, the Naval Reserve units are excluded from obtaining upgraded radio equipment associated with the Aircraft Block Upgrade. Exclusion of Naval Reserve F-14A aircraft from all Structural Maintenance and Survivability Block upgrade proposals will preclude maintaining fully compatible and capable weapons systems in the Naval Reserve.

Another critical modification program for the Naval Reserve occurs with the A-6E aircraft. Presently, 65 percent of the A-6E aircraft are restricted during flight operations for wing modifications. With the engineering and testing problems being experienced in the A-6E composite wing development program, Naval Reserve squadrons have only 7 unrestricted aircraft, of the 20 assigned, available for training. A minimum of 12 are needed to adequately meet minimum training goals.

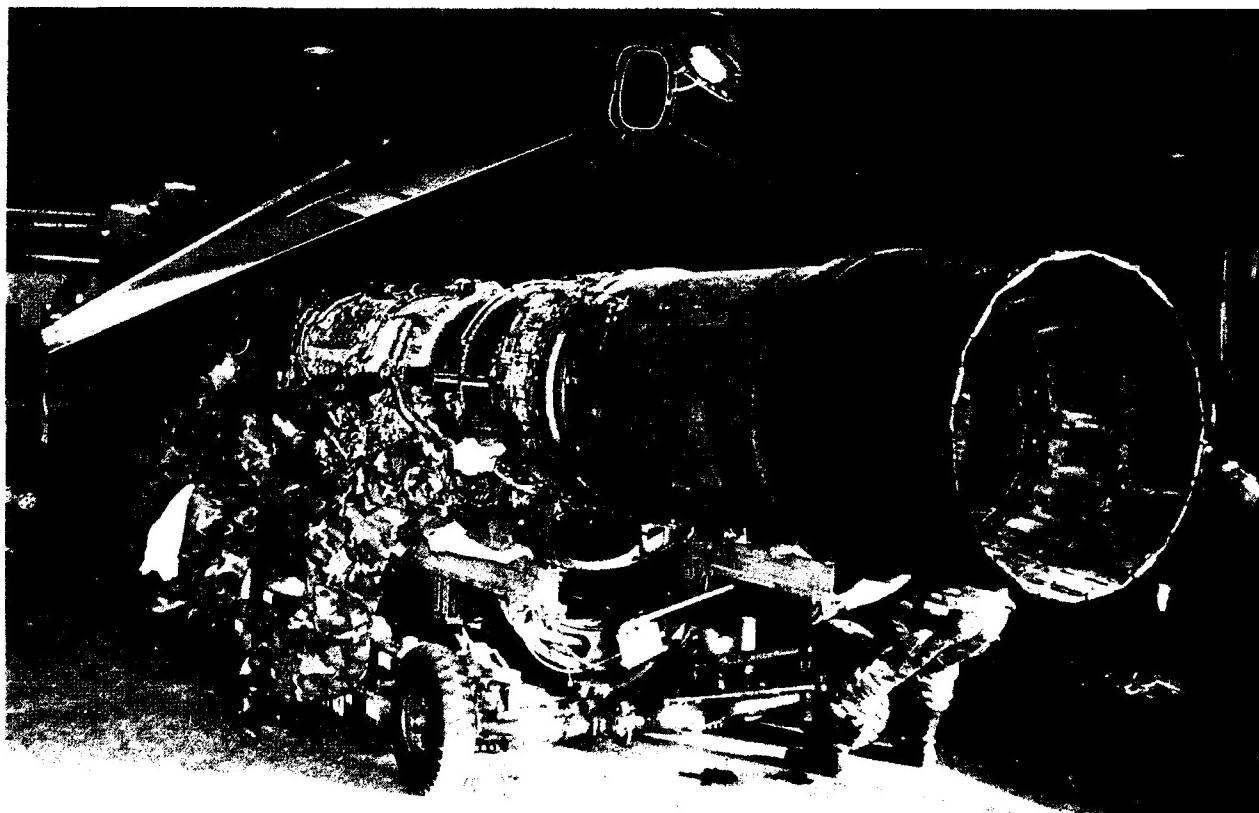
Without current upgrades the Naval Air Reserve equipment becomes non-supportable when integrated with the Fleet for training or mobilization.

In the Marine Corps Reserve an engineering change proposal to the Marine Corps Full-crew Interactive Simulator Trainer (FIST) for the M60A3 battle tank was conducted in fiscal year 1992. This proposal was to modify the existing system to function on the M1A1 Main Battle Tank. Various product modifications on the HAWK missile system were conducted and modifications will continue into fiscal year 1993.

If the Air National Guard and Air Force Reserve are to remain a viable force, updates of older systems must continue. Historically, most of the systems which are transferred to the Air National Guard and Air Force Reserve have passed the mid-phase in the original life cycle. Early and concerted efforts to ensure ongoing upgrade of the capabilities of the system will enhance its effectiveness and offer the most efficient use of resources. Approval and funding for the Reserve component modification programs must receive priority attention in order to gain the advantage that new technology can provide.

The Air Force has revised its procedures on approval and funding of modifications, making it imperative that the gaining Major Commands include the requirements of the Air Reserve components in their priority ranking. However, the gaining Major Commands have their own priority needs and, therefore, many of the Reserve component requirements go unfunded in constrained fiscal periods. This is especially true for those weapon systems such as the older C-130s and F-16A/Bs, which are unique to the Air Reserve components. It is vitally important that upgrade programs continue be funded and implemented to ensure that these aircraft retain their mission effectiveness throughout their lifetime.

In the Air National Guard, 18 squadrons converted to newer aircraft. There were no major equipment modification programs delayed or eliminated in fiscal year 1992. The major impact of these conversions has been to increase the capabilities of the Air National Guard by replacing older, obsolete equipment with more modern, front-line equipment. Indirectly, this capability increase also improves the readiness of the Air National Guard, since these newer aircraft are easier to maintain and allow the Air National Guard to more easily integrate with Active component counterparts.



The F-15 Multi-Stage Improvement Program remains the number one priority of all Air Combat Command programs. This modification program is seen as the key to improving almost all F-15 A/B combat capability deficiencies. It provides radar improvements, a larger central computer, advanced medium range air-to-air missile capability, growth potential through improved wiring and bus structures. Fleet-wide configuration control and better maintainability and supportability are also achieved through this improvement program.

The Air Combat Command conversion priority dictates that all F-15C/D aircraft will be modified first. Funding constraints have slipped the C/D conversions, thus resulting in slips in the F-15A/B Reserve component aircraft. The current programmed depot maintenance installation schedule shows the first Air National Guard F-15A/Bs are to be modified in fiscal year 1997 with completion of the program in the year 2002. The Air National Guard goal is to modify all their F-15A/B aircraft going through depot maintenance starting in fiscal year 1992. This schedule would require \$60 million a year beginning in fiscal years 1992-94 and would modify 126 Air National Guard F-15 A/B aircraft by fiscal year 1997.

In the Air Force Reserve, the MH-60G modification program was delayed for two quarters due to unprogrammed cost increases. No modification programs were eliminated in the Air Force Reserve during fiscal year 1992. The Self-Contained Navigation System (SCNS) is the most extensive modification ever programmed for the C-130 fleet. It provides both the navigational self-reliance and increased accuracy needed to accomplish assigned missions, without dependency on external emitter-type navigation aids. Not having to depend on navigation aids susceptible to jamming, SCNS enhances survivability in combat. Congressionally-provided funds have been used by the Air Reserve components to supplement the SCNS upgrade funding for their C-130 aircraft.

There were no unit equipment modification programs conducted in the Coast Guard Reserve during fiscal year 1992.

*The Board recommends that upgrade or modification programs be fully funded and implemented to ensure that Reserve*

*component equipment retains mission effectiveness and interoperability throughout its service life.*

## Equipment On-Hand

Table 6-3 compares the fiscal year 1992 dollar value of equipment required with fiscal year 1991 values for major equipment required, spare parts, and other equipment items authorized during wartime, and on-hand for each Reserve component.

The Coast Guard Reserve is not included on either table 6-3 or 6-4 because it is the responsibility of the Coast Guard's Active component gaining command to provide all the equipment needed for mobilization of the Coast Guard Reserve.

The equipment values reported by the Army National Guard include substitute and older generation items, many of which are still documented as 'required.' The Army has declared many of these items non-supportable in a modern combat theater. The fill levels shown in Table 6-3, together with required modernization, means only one-half of the Army National Guard could be deployed with full equipment allowance. Significant additional equipment would be required to fully modernize and equip the Army National Guard.

With only 66 percent of major equipment items on hand, the Army Reserve has reached only the bare minimum of overall equipment readiness for major items. Since Army Reserve units comprise 38 percent of the Army's combat support and combat service support units, this equipment shortage has a major negative impact on the Army's ability to support its combat operations. Specific areas of vulnerability include maintenance, communications/electronics, and engineering equipment.

In the Naval Reserve, the Total Force Horizontal Integration policy continues to provide required major equipment items such as front line ships and aircraft. While adequate equipment was available for Operations DESERT SHIELD/STORM, significant shortages continue in the Naval Reserve Construction Force, the Reserve Cargo Handling Force, Mobile Inshore Undersea Warfare, and other mission areas.

**Table 6-3**  
**VALUES OF MAJOR EQUIPMENT ITEMS, SPARE PARTS AND OTHER ITEMS**  
**Fiscal Years 1991-1992**  
**(Dollars in Millions)**

		Army National Guard	Army Reserve	Naval Reserve <sup>1,2</sup>	Marine Corps Reserve <sup>3</sup>	Air National Guard	Air Force Reserve
<b>Major Equipment Items</b>							
Wartime Reqmt	FY92	36,183	10,879	15,805	4,195	28,088	11,557
Wartime Reqmt	FY91	34,563	11,645	16,005	4,195	23,610	10,051
Difference		1,620	(766)	(200)	0	4,478	1,506
Authorized	FY92	36,132	9,320	15,805	4,195	28,088	11,557
Authorized	FY91	34,515	9,296	16,005	4,195	23,610	10,051
Difference		1,617	24	(200)	0	4,478	1,506
On-Hand	FY92	27,293	7,126	15,802	3,874	28,088	11,557
On-Hand	FY91	25,578	7,916	15,985	3,874	23,610	10,051
Difference		1,715	(790)	(183)	0	4,478	1,506
% OH vs WT Reqmt FY1992		75.4%	65.5%	100.0%	92.3%	100.0%	100.0%
% OH vs WT Reqmt FY1991		74.0%	68.0%	99.9%	92.3%	100.0%	100.0%
Percent Change		1.4%	(2.5%)	0.1%	0.0%	0.0%	0.0%
\$\$ Shortfall, OH vs WT Reqmt	FY92	(8,890)	(3,753)	(3)	(321)	0	0
<b>Spare Parts</b>							
Wartime Reqmt	FY92	332	31	455	12	875	158
Wartime Reqmt	FY91	357	31	462	12	3,120	192
Difference		(25)	0	(7)	0	(2,245)	(34)
Authorized	FY92	332	31	455	12	875	158
Authorized	FY91	357	31	462	241	2,940	192
Difference		(25)	0	(7)	(229)	(2,065)	(34)
On-Hand	FY92	198	18	177	12	684	111
On-Hand	FY91	235	22	158	12	2,321	143
Difference		(37)	(4)	19	0	(1,637)	(32)
% OH vs WT Reqmt FY1992		59.6%	58.1%	38.9%	100.0%	78.2%	70.3%
% OH vs WT Reqmt FY1991		65.8%	71.0%	34.2%	100.0%	74.4%	74.5%
Percent Change		(6.2%)	(12.9%)	4.7%	0.0%	3.8%	(4.2%)
\$\$ Shortfall, OH vs WT Reqmt	FY92	(134)	(13)	(278)	0	(191)	(47)
<b>Other Equipment Items</b>							
Wartime Reqmt	FY92	4,535	398	1,454	153	3,397	749
Wartime Reqmt	FY91	4,260	570	1,274	143	3,110	873
Difference		275	(172)	180	10	287	(124)
Authorized	FY92	4,487	361	1,430	153	3,397	748
Authorized	FY91	4,221	518	1,244	143	3,110	873
Difference		266	(157)	186	10	287	(125)
On-Hand	FY92	3,255	318	828	152	2,285	627
On-Hand	FY91	2,970	462	738	137	2,322	621
Difference		285	(144)	90	15	(37)	6
% OH vs WT Reqmt FY1992		71.8%	79.9%	56.9%	99.3%	67.3%	83.7%
% OH vs WT Reqmt FY1991		69.7%	81.1%	57.9%	95.8%	74.7%	71.1%
Percent Change		2.1%	(1.2%)	(1.0%)	3.5%	(7.4%)	12.6%
\$\$ Shortfall, OH vs WT Reqmt	FY92	(1,280)	(80)	(626)	(1)	(1,112)	(122)

**Notes:**

1. Major equipment item figures include value of ships. Large increases in FY92 reflect this change.
2. Spare parts figures reflect inclusion of construction force and cargo force spares and higher costs associated with transition to new aircraft, i.e., A-6E, F/A-18A, P-3C, EA-6B, C-130T, and HH-60H.
3. The FY91 figures do not include the 4th Marine Aircraft Wing.

Source: The Reserve components.

Data as of September 30, 1992.

## **Equipment Shortages**

Although the Reserve components have received large amounts of modern equipment in recent years, significant equipment shortages remain. Table 6-4 shows major equipment shortages, as of the end of fiscal year 1992, by comparing the percent of total major equipment on-hand with wartime requirements for each of the Reserve components. Table 6-5 puts these shortages into perspective. Data for Table 6-5 is drawn from Table 6-4.

Seven percent of the Army National Guard units do not meet deployment criteria in accordance with Army mobilization and operational planning execution system for equipment on-hand. The current Army program will continue to reduce the \$10.2 billion equipment shortages in the Army National Guard, but it is not adequate to eliminate them. Equipment from Active component force drawdowns will help, but specific equipment and numbers from Europe and Forces Command are unknown. Most of the equipment shortages are Army-wide. Modernization of the Army National Guard force structure will increase the requirements for support equipment. Shortages will continue into the foreseeable future.

Approximately 28 percent of Army Reserve units cannot accomplish their wartime mission because of equipment shortages. This percentage is based on current, funded authorization documents and reflects equipment shortages for units reporting C-4 and C-5 category levels. Much of the Army Reserve's \$3.8 billion dollar equipment shortages are within the combat support/combat service support engineer, transportation, ordnance, communications, and quartermaster specialty areas. These units are key to the early mobilization and deployment of Reserve units and deployment of Active units. The minimal levels (66 percent) of equipment on hand, would require extensive cross-leveling (transfer of equipment between deploying units to increase readiness levels) which will detract from, and lengthen, the mobilization and deployment process of Army Reserve units.

Within the Naval Reserve, 94 percent of existing units are augmentation units which have no mobilization equipment allowance. Necessary equipment is held by the Active

component activity to which those Reservists mobilize. Sixteen percent of the commissioned hardware Naval Reserve units, including ships, air squadrons, construction forces, cargo handling and other units cannot accomplish the bulk of their wartime missions due to equipment shortages.

The most critical Naval Reserve equipment shortages in the \$900 million equipment shortage include: unrestricted A-6E aircraft, tactical aircraft electronic warfare equipment, support equipment for the F/A-18A and P-3C aircraft, and bomb rack adaptor hardware for the F-14A aircraft. A fleet-wide shortage exists; none are available to Reserve forces, except temporarily loaned assets from the Active fleet. Without the bomb rack adaptor hardware, adequate training cannot occur in the Reserve F-14 units, and the mission cannot be accomplished upon mobilization. Equipment upgrades are required for other Reserve aircraft types to overcome deficiencies in mine countermeasures, navigation systems, and electronic equipment.

The most significant Surface Reserve equipment shortage problems have been in the Mobile Inshore Undersea Warfare (MIUW) and construction battalion programs. Twenty percent of the Reserve MIUW units have been unable to perform their basic mission because of these equipment shortages. In the MIUW Reserve program, the delivery of five additional new Radar Sonar Surveillance Center vans was made in fiscal year 1992, and five more are scheduled for delivery in fiscal year 1993. In the Naval Reserve construction battalions, some new equipment was procured in fiscal year 1992, but there was no significant net improvement in the reduction of major end item shortages. Construction equipment Table of Allowances (TOA) reflect shortages for 35 percent of current units, including secure transmission communications equipment.

In the Marine Corps Reserve, the most critical equipment items in the \$1.1 billion shortages occurs in the F/A-18 spare parts and support equipment, 50-caliber machine guns, M1A1 training allowance, and communication support shelter control equipment. Machine guns are being requisitioned through the supply system; funding for the F/A-18 spare parts and support equipment is programmed in the budget for the out-years.

**Table 6-4**  
**EQUIPMENT SHORTAGES**  
**MAJOR EQUIPMENT ON-HAND VS. WARTIME REQUIREMENT**  
**(Dollars in Millions)**

	<u>Wartime Requirement</u>	<u>Authorized</u>	<u>On-Hand</u>	<u>\$ Shortage On-Hand vs Wartime Requirement</u>	<u>Percent On-Hand vs Wartime Requirement</u>	<u>Percent On-Hand vs Authorized</u>
<b>Army National Guard</b>						
Fiscal Year 1992	40,718	40,619	30,548	10,170	75.0%	75.2%
Fiscal Year 1991	38,823	38,736	28,548	10,275	73.5%	73.7%
Difference	1,895	1,883	2,000	( 105)		
Percent Change	4.9%	4.9%	7.0%	(1.0%)		
<b>Army Reserve</b>						
Fiscal Year 1992	11,308	9,712	7,462	3,846	66.0%	77%
Fiscal Year 1991	12,246	9,845	8,400	3,846	68.6%	85.3%
Difference	( 938)	( 133)	( 938)	0		
Percent Change	(7.7%)	(1.4%)	(11.2%)	0.0%		
<b>Naval Reserve<sup>1,2</sup></b>						
Fiscal Year 1992	17,714	17,690	16,807	907	94.9%	95.0%
Fiscal Year 1991	17,741	17,711	16,881	860	95.2%	95.3%
Difference	( 27)	( 21)	( 74)	47		
Percent Change	(0.2%)	(0.1%)	(0.4%)	5.5%		
<b>Marine Corps Reserve<sup>3</sup></b>						
Fiscal Year 1992	1,946	814	801	1,145	41.2%	98.4%
Fiscal Year 1991	1,160	528	425	632	36.6%	80.5%
Difference	786	286	376	513		
Percent Change	67.8%	54.2%	88.5%	81.2%		
<b>Air National Guard</b>						
Fiscal Year 1992	35,093	34,925	32,926	2,167	93.8%	94.3%
Fiscal Year 1991	29,840	29,660	28,253	1,587	94.7%	95.3%
Difference	5,253	5,265	4,673	580		
Percent Change	17.6%	17.8%	16.5%	36.5%		
<b>Air Force Reserve<sup>4</sup></b>						
Fiscal Year 1992	12,464	12,463	12,295	169	98.6%	98.7%
Fiscal Year 1991	11,116	11,116	10,815	301	97.3%	97.3%
Difference	1,348	1,347	1,480	( 132)		
Percent Change	12.1%	12.1%	13.7%	(43.9%)		
<b>DoD Total</b>						
Fiscal Year 1992	119,243	116,223	100,839	18,404	84.6%	86.8%
Fiscal Year 1991	110,926	107,596	93,322	17,501	84.1%	86.7%
Difference	8,317	8,627	7,517	903		
Percent Change	7.5%	8.0%	8.1%	5.2%		

**Notes:**

1. FY91 figures changed to include value of ships.
2. Although the overall Naval Reserve equipment requirements are 95% filled, this statistic is dominated by the high cost of ships and aircraft. Significant equipment shortages exist in the Reserve Naval Construction Force, Reserve Cargo Handling Force, Mobile Inshore Undersea Warfare, and other mission areas.
3. The impact on readiness is negligible. FY91 data reflects transfer of equipment to SWA in support of the Active Forces. Also, prior year data did not include Maintenance Float statistics. The FY91 figures do not include the 4th Marine Aircraft Wing.
4. Notwithstanding the overall percentage of 98.7%, there are critical shortages in items such as individual equipment and night vision devices.

Source: The Reserve components.

Data as of September 30, 1992.

Equipment availability and suitability accounts for much of a Marine Corps Reserve unit's overall readiness. In terms of availability, units carry a training allowance at their home training centers. This allows them to train on each piece of deployable equipment while not exceeding storage and maintenance limitations. In terms of suitability, the horizontal integration of equipment across the Total Force is crucial in order for Marine Reserve units to effectively augment and reinforce Active component units.

Improvements have been made in major equipment shortages in fiscal year 1992 due to the transfer of equipment to the Air Reserve components as a result of the Active component draw down. All the Air National Guard aviation units can accomplish the bulk of their wartime missions despite continuing shortages of support equipment. Workarounds, though often expensive and inefficient, are utilized whenever possible to compensate for equipment shortfalls. Primary areas affected are F-16, MH-60G, C-130H, and KC-135 aircraft conversions. Lack of critical support equipment has impeded mission readiness.

The Air National Guard equipment requirement for fiscal year 1992 was \$1.3 billion. Due to budget constraints, DoD chose not to submit Air National Guard equipment needs to Congress for fiscal year 1992. However, Congress still appropriated \$545.4 million for Air National Guard equipment of which \$482.3 million was originally listed as Air National Guard requirements (C-26 aircraft and MH-60G helicopters were not listed as a requirement by the Air National Guard but were funded in the amount of \$63.1 million).

Each category of newly acquired major equipment has shortages in support equipment. The shortages consist mainly of those weapons system-unique items which involve a long lead time for delivery. Although both Active and Reserve components are affected, the impact is more severe on the Reserve units because they are not typically collocated with similarly equipped Active component units. Frequently, support equipment for Reserve component conversions is sourced from an Active component wing converting to more modern aircraft. The wing may have had two or three pieces of a particular item of support equipment to support 72 aircraft. As the aircraft are reassigned and allocated to Reserve

components units in quantities of 18 or 24, there are insufficient support equipment assets to go around. The procurement of items which were originally manufactured 10 to 20 years earlier then becomes a major problem. Although workarounds are developed, units do not have either full training or deployment capability until all critical shortages have been filled.

Due to budget constraints, the Department of Defense did not submit a requirement for Air National Guard equipment needs for fiscal year 1993 within the Guard and Reserve Equipment Appropriation. Unfunded requirements are currently listed at \$1.4 billion.

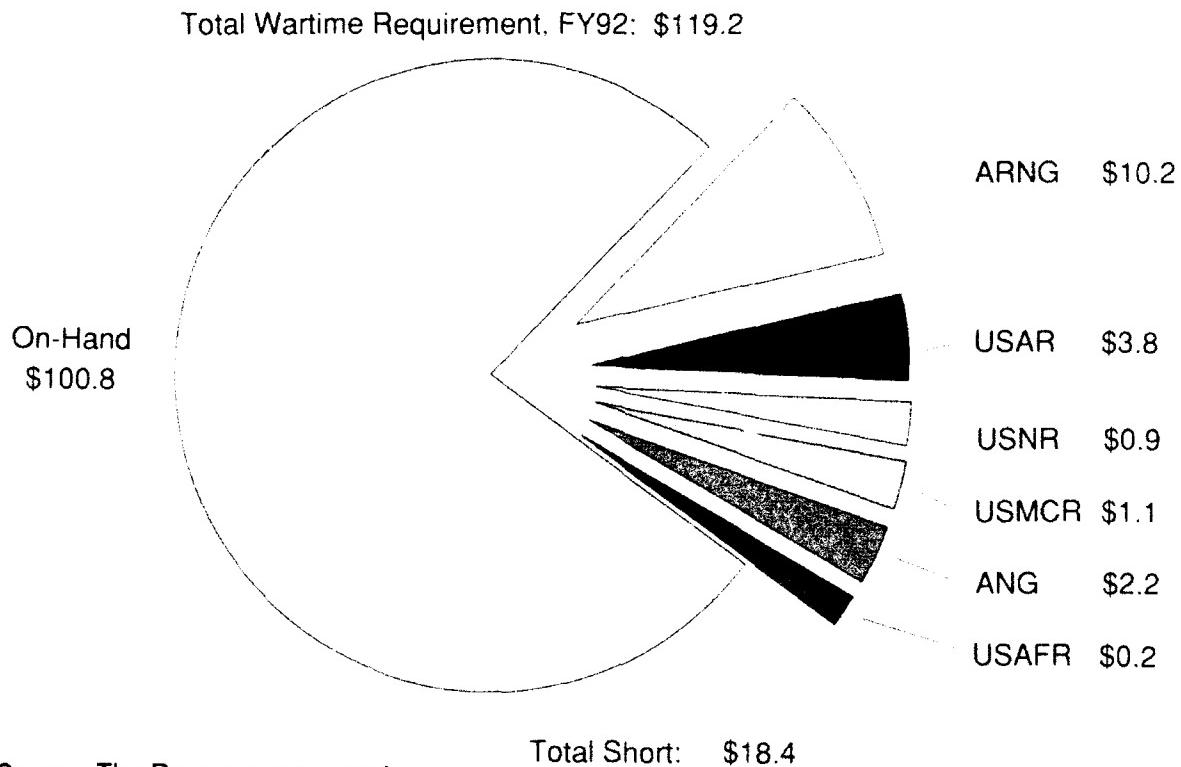
The Air National Guard is short mobilizer transporters for combat communications units. Mobilizers are required to transport the communications equipment. Without the mobilizers, road and air mobility forces are degraded. The shortage of mobilizers has existed for the last four years due to contractor default and continual program slippages. A program is presently being coordinated with the Army to alleviate this shortage.

Air National Guard communications units are also short line-of-sight microwave radios and multi-capability computer equipment. The current program for microwave radios still leaves some units short of their full authorizations.

There is also, a shortage in single channel UHF satellite radios and hand held, secure, digitized radios required to provide Air National Guard wing commanders with base-level command and control during deployed operations. These assets support both Combat Communications units and flying unit organic communications packages that deploy with the flying unit and provide initial command and control capability.

Air Force Reserve units generally can accomplish their wartime missions with unit equipment on-hand. However, equipment shortages in chemical warfare protective equipment and aircraft maintenance specialized equipment still exists. Since fiscal year 1991, there have been no substantial improvements in providing additional equipment to eliminate these shortages. Readiness is adversely affected as units do not have the required equipment for

**Table 6-5**  
**Equipment Dollar Shortages**  
**(Dollars in Billions)**



Source: The Reserve components.  
Data as of September 30, 1992.

mission accomplishment. Training is adversely affected by either having to borrow equipment or doing without.

Air National Guard and Air Force Reserve units that are neither activating nor converting generally have adequate support equipment available. The exception is in some weapon system-unique equipment that historically has been late to meet the need, such as systems test equipment, specialized tools, aircraft jacks, special purpose aircraft maintenance stands, and munitions loading and handling items. Lack of sufficient spares for Air Reserve component C-5 aircraft has had a major impact on C-5 sustainability and mission capable rates.

Air Force regulations require that all mobility equipment must be on hand, on order, or included in a budget document. With the draw down of Active component forces, some of these shortages could be filled from base

closure assets. In some cases, though, the realignment of a weapons system could create additional support equipment shortages. To date, all the Air Force Reserve assets have not been recalled at once, and assets have been moved from other units to fill shortages in deploying units. In the event of full mobilization where all Air Reserve units were called up, some units would have support equipment shortages and be unable to accomplish their entire wartime tasking.

In the Coast Guard the gaining Active component command provides the necessary equipment to the Reserve units required for training and surge operations. Major equipment shortages at the gaining commands for the Reserve component are in patrol crafts and vehicles. Lesser items in shortages include secure hand held communication equipment, night vision devices, protective clothing, and safety, engineering, and electronics equipment.

In fiscal year 1992, the Department of Defense's Reserve components acquired many newer items of equipment through the National Guard and Reserve Equipment Appropriations (NGREA), which were required for support, transportation, defensive systems, communications, improved detection systems, and test equipment. During fiscal years 1988-1993, Congress appropriated approximately \$8.97 billion in NGREA. Table 6-6 lists major

equipment shortages still identified by the Services for each of the Reserve components in fiscal year 1992.

*The Board recommends that the Department of Defense direct the Services to develop a policy to request full funding for a complete complement of support equipment and spares with each Reserve component conversion to newer equipment.*

Tab 6-6  
MAJOR EQUIPMENT SHORTAGES

**Army National Guard**

5-Ton trucks<sup>1</sup>  
Chemical defensive equipment<sup>1</sup>  
Communication Security Systems<sup>1</sup>  
General purpose electronic test equipment<sup>1</sup>  
Generator sets<sup>1</sup>  
Heavy equipment transporters (HET)<sup>1</sup>  
HEMTT<sup>1</sup>  
Medium tractors/trailers<sup>1</sup>  
SINCGARS radios<sup>1</sup>  
Vehicular FM radios<sup>1</sup>

**Army Reserve**

C-12 Aircraft  
Communication systems  
Heavy equipment transporters  
Materiel handling equipment  
Tactical wheeled vehicles  
Water purification systems  
SINCGARS radios  
Tool sets, test sets and measurement devices  
Trucks 2½ & 5 ton

**Naval Reserve**

Bomb rack adapter hardware for F-14A Aircraft<sup>1</sup>  
Communication equipment<sup>1</sup>  
Construction force equipment<sup>1</sup>  
F/A-18A electronic warfare equipment<sup>1</sup>  
Mobile inshore undersea warfare (MIUW) upgrade equipment<sup>1</sup>  
Reserve cargo handling equipment<sup>1</sup>  
Support equipment for all types of aircraft<sup>1</sup>  
Unrestricted A-6E aircraft<sup>1</sup>

**Note:**

1. Shortages occur in both the Active and Reserve components.

Source: The Reserve components.

Data as of September 30, 1992.

**Marine Corps Reserve**

Communication support equipment<sup>1</sup>  
F/A-18 Spare parts<sup>1</sup>  
F/A-18 Support equipment<sup>1</sup>  
Machine Guns (50 cal)<sup>1</sup>  
Shelter equipment

**Air National Guard**

Aircraft towing tractors  
Communication mobilizers  
Fire Rescue trucks  
Fueling trucks  
Generators  
Global Positioning Systems  
Mobility containers  
Night vision goggles  
Training and support equipment

**Air Force Reserve**

Aircraft maintenance and repair shop specialized equipment  
Airfield specialized trailers  
Electrical sets  
Generator sets  
Trucks & Tractors, Self-Propelled  
Trucks and truck tractors

**Coast Guard Reserve**

Light pickup trucks<sup>1</sup>

**Table 6-7**  
**NATIONAL GUARD & RESERVE EQUIPMENT APPROPRIATIONS 1988-93**  
(Dollars in Millions)

	FY88	FY89	FY90	FY91	FY92	FY93	Total
Army National Guard	273	256	315	796	344	544	2,528
Army Reserve	85	30	89	71	103	73	451
Naval Reserve	66	145	118	659	384	162	1,534
Marine Corps Reserve	40	82	109	160	158	232	781
Air National Guard	341	400	239	623	558	432	2,593
Air Force Reserve	202	227	39	155	362	125	1,110
<b>DoD Total</b>	<b>1,007</b>	<b>1,140</b>	<b>909</b>	<b>2,464</b>	<b>1,909</b>	<b>1,568</b>	<b>8,997</b>

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.  
Data includes FY93 appropriated amounts.

### National Guard and Reserve Equipment Appropriations

National Guard and Reserve Equipment Appropriations (NGREA) consist of funds dedicated for the purchase of Reserve component equipment. These funds are in addition to those requested in the President's budget. Some of the funds are designated by Congress for the purchase for specific items of equipment. The remainder may be used by Reserve components for discretionary purchases of equipment to improve readiness. Dedicated National Guard and Reserve Equipment Appropriations complement service appropriations to improve training and readiness in the Reserve components. The wise use of these funds has reduced critical equipment shortages in the Reserve components.

Table 6-7 displays the National Guard and Reserve Equipment Appropriations from fiscal year 1988 through fiscal year 1993.

During fiscal year 1992, the Reserve components spent \$953 million of their programmed NGREA funds to purchase much-needed equipment. The dollar value of equipment purchased by the Army National Guard was \$33 million, Army Reserve \$101 million, Naval Reserve \$373 million (includes fiscal year 90, 91, and 92 funds), Marine Corps Reserve \$178 million, Air National Guard \$107 million, and Air Force Reserve \$161 million. The projected dollar value of equipment to be purchased by the Reserve components for fiscal

year 1993 with NGREA appropriations is \$1.568 billion.

Table 6-8 lists the type and numbers of equipment purchased by Service in fiscal year 1992 with NGREA dollars.

The use of NGREA funds to purchase equipment for the Guard and Reserves enhances their readiness and capability for mobilization. Much of the equipment procured with NGREA funds was used in Operations DESERT SHIELD/STORM. NGREA funds offer Reserve components the flexibility to capitalize on procurement opportunities which reduce equipment shortages and meet changing force structure and mission requirements.

The benefit the National Guard and Reserve receives from the use of NGREA dollars is limited by the way Congress allocates NGREA. Originally, the purpose of the NGREA was to fund equipment the National Guard and Reserve needed to improve readiness which the Active components were not providing. It funded smaller pieces of equipment and items in a lower-priority category with the Active components. Currently, Congress primarily appropriates high-dollar equipment items for Reserve component modernization which only enhances a few units' readiness. By concentrating on high value items, Congress has disregarded items on the National Guard and Reserve equipment priority lists, which would ultimately have a greater impact on readiness. These lesser value items are, therefore, omitted from NGREA. Because of

**Table 6-8**  
**EQUIPMENT PURCHASED WITH NATIONAL GUARD  
 AND RESERVE EQUIPMENT APPROPRIATION FUNDS**

	<u>Quantity</u>		<u>Quantity</u>
<b>Army National Guard</b>		<b>Marine Corps Reserve</b>	
AH-1 Mod C-Night, Attack Version	2	AH-1W Cobra Helicopter	6
AN/TTC-39A	3	AN/GRM-114, SINCGAR Radio Test Equip.	94
C-23 Aircraft	10	KC-130T Aircraft	2
C-26 Aircraft	1	LAAD Trainer, Moving Target Trainer	1
Comm-Electronics Equip.	99	Radial Tire Kits	156
Engagement Training Devices	257	<b>Air National Guard</b>	
MLRS-BN Sup Pkg/Launchers	1	AN/ALQ-157, C-130H Shipsets	12
Night Vision Equipment	3700	F-15A/B MSIP (Various)	
SINCGAR Radio Bde Sets	2	F-15/F-16 Support Equipment	
Tactical Trucks	30	- Boresight Kits	14
Unit Level Log. Equipment	2700	- Engine Installation Adapter Assem.	35
<b>Army Reserve</b>		- Gyros	10
Communications-Electronics Equip.	254	- Hydraulic Test Stand	35
Large Tugboat	1	HH-60G Mods	2
Mobile Boat Hoist	1	KC-135E Aircraft Mods	
Night Vision Equip.	1921	- Auxiliary Power Units	75
SINCGAR Radios	1214	- Engines	75
Tactical Trucks	277	- Fuel Probe Shipsets	90
<b>Naval Reserve</b>		- Generators	75
ABFC Equipment	35	<b>Air Force Reserve</b>	
AN/ARC-182 Radio	32	ANV-126 Test Sets (Night Vision Equip.)	5
AN/SQQ-T1 Trainer/Upgrade	8	Base Information Digital Distribution	
C-130T Aircraft	12	System	1
C-20G Aircraft	2	C-130H Aircraft	15
Computer Based Training System	3	Cartridge Interface Device	16
Construction Bn Automatic Building Machines	15	F-16 Engine Upgrade (F100-220E)	31
EOD CESE Equipment	26	Forward Looking Infrared (FLIR)	4
FFT-1052 FFISTS System	2	HH-60G Improvements	16
LAMPS MK-1 Upgrade	6	Scope Shield II Radios	140
MH-53E Minesweeper Helicopter	12	Strategic/Tactical Automated Mission	
MIUW CESE Equipment	20	Planning System (STAMPS)	1

Source: The Reserve components.

Data as of September 30, 1992.

this recent trend to appropriate money for equipment not at the top of the priority list or even on the list, planning by the components for the incorporation of the equipment into service has been difficult. This further detracts from the Reserve components' ability to improve unit readiness.

### Aircraft Defensive Systems

Aircraft survivability equipment items, including improved threat detection, flare and

chaff dispensers, radar warning receivers, electronic countermeasures, and the like, are still critically short. Without these upgrades, aircrews will be extremely vulnerable to the current and future generations of enemy weapons. These survivability enhancements provide the most effective, least expensive way to expand our combat and airlift forces. Dollars spent to cut losses in the high threat air battle improve the capability to regenerate the force for follow-on missions. Aircraft defensive systems are force multipliers.

In order to acquire and maintain adequate defense systems, Reserve component forces must have the same, state-of-the-art systems as the Active component forces for the purposes of training, maintenance, and supportability of equipment while deployed. The lack of certain defensive equipment and proper training impacts mobilization capabilities and prevents commanders from deploying units to high threat areas. Furthermore, a lack of deceptive electronic countermeasures and radar warning devices equipment severely limits readiness, and would limit survivability of aircraft and crews in combat conditions.

The shortages of this equipment does not allow aviators to develop the skills required to survive on the modern battlefield. The shortage of equipment also hampers the training of aircrews and has a direct impact on the readiness of Reserve component units.

Table 6-9 lists defensive equipment still needed on Guard and Reserve aircraft during fiscal year 1992.

Future requirements for defensive equipment within the Army National Guard cannot be fully determined at this time until the final decision is made on the force structure of the Army National Guard aviation program. Estimated cost to equip all current aircraft with required Aviation Survivability Equipment is \$300 million. There has been a slight improvement in the percentage of defensive systems in Army National Guard aircraft since Operations DESERT SHIELD/STORM.

There has been no appreciable improvement in the number of Army Reserve aircraft with defensive systems on board in the past year. Defensive equipment still needed on Army Reserve aircraft includes radar jammer sets, radar detecting sets, radar warning systems, infrared countermeasure sets, missile-approved detectors, and laser detecting sets. An estimated \$6.0 million will be required to modify and bring the Army Reserve aviation units up to the quantities authorized. The lack of modern electronic defensive systems impacts on unit training readiness and battlefield survivability.

**Table 6-9**  
**DEFENSIVE EQUIPMENT NEEDED ON RESERVE COMPONENT AIRCRAFT**

**Army National Guard**

Deceptive electronic countermeasure equipment  
Radar Warning devices

**Army Reserve**

Infrared Countermeasure Sets  
Laser Detecting Sets  
Missile Approved Detectors  
Radar Detecting Sets  
Radar Jammer Sets  
Radar Warning Systems

**Naval Reserve**

Radar Detecting Sets  
Radar Jammer Sets  
Radar Warning Sets

**Marine Corps Reserve**

Radar Jammer Sets  
Radar Warning Systems

**Air National Guard**

Chaff & Flare dispensers  
Electronic Countermeasure Pods  
Missile Warning Receivers  
Wiring for Infrared Jammers

**Air Force Reserve**

Airlift Defensive systems  
Electronic Countermeasure pods  
Radar Warning Receivers

Source: The Reserve components.  
Data as of September 30, 1992.

Due to shortages in defensive electronic countermeasure equipment, much of the Naval Air Reserve is currently operating state-of-the-art aircraft with little or no defensive capabilities. While the increased number of older defensive systems improve warfighting capabilities, training and experience with borrowed state-of-the-art systems is only obtained in the few weeks prior to and during annual training. These procedures lead to training deficiencies for both aircrew and maintenance personnel in the Naval Reserve.

Naval Reserve F/A-18A aircraft are not equipped with deceptive electronic countermeasures equipment or Radar Warning Receiver equipment. Without this electronic warfare equipment, it is impossible to provide realistic air crew and maintenance training and the F/A-18A aircraft is more vulnerable in the electronic battlefield environment.

The Marine Corps Reserve will require approximately \$29 million of electronic defensive equipment to equip Reserve component aircraft adequately. Shortfalls include radar warning systems and radar jammer sets, and infrared countermeasure sets. Because of these shortages, not all aircrews have the opportunity to train with the equipment they will use when mobilized.

Aircraft defensive system modification and upgrade programs in the Air National Guard are required in the area of additions of electronic countermeasure (ECM) pods. Upgrades to a more capable ECM pod instead of the current pods and the modification of transport aircraft with radar warning receivers (RWR) and accompanying chaff and flare decoy systems are desperately needed on Air National Guard and Air Force Reserve aircraft.

A total of nine Air National Guard units either received initial ECM pods or converted to newer pods in fiscal year 1992. Eight additional units will receive or upgrade ECM pods in fiscal year 1993. There have been no delays, other than through contractor inability to deliver, on ECM pods going through an upgrade prior to issue to the field. As reported in previous years, the Air Reserve components are faced with shortages and incompatibility in ECM pods. The majority of the pods owned by the Air Reserve components is not adequate against the sophisticated military threats. The Air Force

recognizes this as a universal problem and is procuring the highly capable ALQ-131 pods for the U.S. Air Forces in Europe and Air Combat Command. They are also modifying the older ALQ-119 into the more capable ALQ-181 pods. The Air National Guard prioritization for receipt of the newer ALQ-131 and ALQ-181 pods has improved from the last report. However, when pod procurement funds are cut by the Air Force, distribution of these pods to the Air Reserve components is moved into the future.

Defensive equipment needed for Air National Guard aircraft includes missile warning receivers, chaff and flare dispensers, and wiring for Infra-Red (IR) jammers. The estimated cost to buy and install the required equipment in all Air National Guard aircraft is \$69.3 million. F-16 survivability enhancement requirement exists for a suite of modifications to provide self-protection from a wide spectrum of threats. The Air Force has validated the need for this self-protection capability and has made a production incorporation decision to upgrade new F-16 aircraft. However, existing older aircraft were not programmed for retrofit. The Reserve components have allocated funding to spur prototyping and operational development.

Chaff and flare capability for F-15A/B is being pursued through the Air Force Material Command. Two aircraft are currently in verification. Funding is in place in fiscal years 1993 and 1994 to complete 153 Air National Guard aircraft. Enhancements to Air National Guard F-16 defensive systems capability are being evaluated through a phased approach, including chaff/flare additions, RWR upgrades and missile warning systems.

With the continued support of Congress and the support of Air Combat Command, the Air Force Reserve fighter force is in the best shape ever. However, virtually every Air Force Reserve aircraft needs some enhancement to its defensive capability. As the missions and threats facing the United States evolve, further integrated system upgrades will be necessary to ensure that combat capability is not degraded.

The new defensive equipment the Air Force Reserve requires applies primarily to airlift aircraft. Estimated costs to equip all the Air Force Reserve C-5A and C-141B aircraft with airlift Defensive systems and all the C-130's with radar warning receivers is approximately \$18

million. The Air Force Reserve is working closely with the Air National Guard and the Air Force to identify defensive system requirements for C-5 and C-141 aircraft. Both of these high-value aircraft need fully-capable Airlift Defensive Systems. There has been little improvement in the percentage of Air Force Reserve aircraft equipped with defensive systems in fiscal year 1992. However, within the next 18 months, all of the Air Force Reserve C-130's will be equipped with such systems. While the entire Air Force Reserve C-130 fleet will soon be equipped with a missile warning receiver and a chaff/flair dispenser, the suite still needs to be upgraded with improved digital sequencer switches for the chaff/flare dispensers and the addition of a radar warning receiver.

The Coast Guard has no Reserve component aircraft, and has no requirement for aircraft defensive systems.

*The Board reaffirms its recommendation that Reserve component aircraft be equipped with appropriate modern defensive systems to enhance the survival of aircraft and aircrews in a high-threat electronic environment.*

### Reserve Equipment Transferred to Active Components During Operations DESERT SHIELD/STORM

The Services have taken active roles in developing plans for redistributing and return of equipment from Southwest Asia. The majority of the equipment transferred from the Reserve components units during Operations DESERT SHIELD/STORM has been returned. However, the Army National Guard and the Army Reserve are still experiencing equipment shortfalls as a result of the transfers made to deploying units.

Readiness in the Army National Guard and the Army Reserve during fiscal year 1992, has not returned to pre-Operations DESERT SHIELD/STORM levels. While lack of equipment withdrawn by the Active component is not the only reason for this, it is a significant contributing factor. If adequate resources are not allocated in fiscal year 1993 and fiscal year 1994, the result will be a long-term degradation in readiness.

In the Army National Guard, equipment was

withdrawn from both federalized and non-federalized units. Equipment from non-federalized units was withdrawn under DoD provisions which required Secretary of Defense approval and included an agreement to return the equipment at the conclusion of the operation. Under this authority, 367 pieces of equipment were withdrawn. To date, only 35 percent has been returned. The missing equipment consists of 49 Heavy Equipment Transporters with trailers and 283 Heavy Expanded Mobility Tactical Trucks, 129 of which were diverted directly from the Army National Guard Congressionally Dedicated Procurement Program. The remainder of the Heavy Equipment Mobility Tactical Trucks withdrawn from the Army National Guard will be resourced from new Army production. The Heavy Equipment Transporters withdrawn from the Army National Guard are to be replaced through new production, with the National Guard receiving the new trucks and trailers. Other equipment shortages will be filled from depot stocks with money fenced to identified units and from Southwest Asia reconstitution repair sites and Army unit deactivations. Return of this equipment would raise fill levels by 20 percent for Heavy Equipment Mobility Tactical Trucks and by 12 percent for Heavy Equipment Transporters.

In the Army Reserve, equipment transferred to Active component units/activities, with the Assistant Secretary of the Army's approval, has been returned. However, three Army Reserve units' sets of equipment left in Southwest Asia had not been completely returned as of August 1992. The equipment is scheduled to be completely returned or replaced by the beginning of fiscal year 1993. Army Central Command is continuing to identify combat service support requirements to support a division-minus in Kuwait. Six Army Reserve units' equipment still remain in-theater with no decision yet as to what will remain and what will be returned to the Reserve component units.

In the Naval Reserve, all the aviation equipment transferred in support of Operations DESERT SHIELD/STORM has been returned. Approximately 89 percent of Naval Reserve surface equipment transferred for Operations DESERT SHIELD/STORM has been returned or replacement-funded.

Operations DESERT SHIELD/STORM removed two construction battalion equipment pack-ups from prepositioned war reserve material stock for use. This totaled 500 individual pieces of civil engineering support equipment. The Naval Reserve equipment shortages have had a minimal impact on unit readiness in the short term.

The Marine Corps Reserve's combat capability was significantly improved as a result of equipment being returned during fiscal year 1992. Approximately 95 percent of the equipment was returned to the Reserve units. The return and upgrade of Reserve equipment has steadily improved the readiness rating throughout the Marine Reserve Force to 91 percent. Additionally, seven million dollars was spent in fiscal year 1992 to meet equipment deficiencies such as individual equipment and consumables.

Almost all of the Air National Guard and the Air Force Reserve equipment which was transferred to the Active components during Operations DESERT SHIELD/STORM has been returned.

In the Air National Guard, 99 percent of all the support equipment and vehicles, which was transferred to the Active components during Operations DESERT SHIELD/STORM, has been transferred or returned to their units. The remaining equipment that has not been returned has no significant impact on Air National Guard unit readiness.

In the Air Force Reserve, 63 percent of the equipment transferred has been returned to the Reserve units. The majority of the equipment which has not been returned to Air Force Reserve units is small trucks. Since the simultaneous recall of all Air Force Reserve units is unlikely, vehicles and equipment could be transferred between units to fill shortages in a deploying force.

The Coast Guard Reserve did not have any equipment withdrawn from their units for transfer to the deploying port security units (PSUs). Each PSU was equipped for its mission from Active component equipment supplies prior to deployment. Replacement equipment was ordered through the supply system or commercially as needed to replace equipment shortfalls.

## Training Equipment

Training effectiveness is often determined by the equipment available. Personnel may be trained on modern systems when they first come into a Service or while they are in an Active component unit. However, after they join a National Guard or Reserve unit, they may find that they must train on outdated or inoperative equipment. These personnel no longer have adequate opportunities to maintain proficiency in their designated skills. This jeopardizes the warfighting capability, or, at least, the effectiveness, of both the individual and the unit.

Training equipment shortages naturally vary by the type of unit. In some cases, they are major end items such as tanks, ships, boats, and aircraft. But significant shortages also exist for regular training on such equipment as electronic countermeasures equipment, night vision equipment, small arms, intelligence gathering or interpretation devices, chemical biological defense equipment, damage control equipment, radars, maintenance sets, wheeled vehicles, secure and/or compatible communications equipment, and certain items of medical equipment.

While few units maintain all authorized equipment at the Reserve Training Center, due to space and maintenance limitations, a sufficient percentage of the equipment must be on hand to conduct essential training. The impact on readiness and mobilization will be a longer lead time for those affected units in bringing their full combat power to bear in support of the gaining command.

The use of training simulators and devices will satisfy some of the individual and collective training requirements in a unit. The development and purchase of simulators and devices for the Reserve components should have priority.

Table 6-10 lists fiscal year 1992 Reserve component training equipment shortages.

The Army Minimal Essential Equipment for Training (MEET) program was designed to improve the training readiness of these units by resolving equipment shortages that hindered realistic training. MEET items are based on the training required by a unit to accomplish tasks

contained on its Mission Essential Task List. The Army's training equipment shortages, and its effort to eliminate these shortages, has enhanced the training capabilities for both the National Guard and Reserve.

In the Army National Guard, training equipment shortages include inadequate quantities of Multiple Integrated Laser Engagement Simulation (MILES) System, additional Conduct of Fire Trainers, M9 Armored Combat Earthmover, Nuclear Biological and Chemical training equipment, Electronic Information Delivery System software programs and fully modernized ranges to support gunnery for heavy maneuver forces. Medical training aids, such as moulage kits and other training aids center stored items, are in short supply. The shortage of these items inhibits inactive duty training by Reserve component medical units.

The Army Reserve continues to have significant shortages of training equipment for its Reserve maintenance training sites. Major end items include wheeled and tracked vehicles, M1A1 tanks, M2 Infantry Fighting Vehicles, M-3 Cavalry Fighting Vehicles, HEMTTs, HETS, ACES, Mobile Subscriber Equipment (MSE), Radio Communications Node to train Communications Battalions and Squad Engagement Training Sets (SETS).

In the Naval Reserve, training equipment shortages include aerial targets and flight simulators/weapon system trainers for numerous Reserve aircraft. Significant shortages also occur in medical training equipment areas. Forty additional medical skills practice laboratories are required to support the training of corpsmen and dental technicians in all program areas.

**Table 6-10  
TRAINING EQUIPMENT SHORTAGES**

**Army National Guard**

- Armored Combat Earthmovers
- Conduct of Fire trainers
- Electronic Information Delivery Systems
- Medical training Aids
- MILES Systems
- Modernized training ranges
- NBC training equipment

**Army Reserve**

- ACES
- HEMTT
- HETS
- M1A1 tanks
- M27M3 tanks
- Mobile Subscriber Equipment
- Radio Communications Nodes
- Squad Engagement Training sets

**Naval Reserve**

- Aerial targets
- Flight Simulators
- Medical training equipment
- Weapon system trainers

**Note:**

1. Coast Guard Reserves augment and use the equipment of Active component units.

Source: The Reserve components

Data as of September 30, 1992.

**Marine Corps Reserve**

- Avionics equipment
- Communications equipment
- Cryptological equipment (now being fielded)
- M1A1 Tanks
- MK 19 Grenade Launchers
- Night vision sights & goggles
- Sensor Management Platoon equipment

**Air National Guard**

- Communications equipment
- Electronic equipment
- Medical equipment
- Training munitions

**Air Force Reserve**

- Training munitions

**Coast Guard Reserve<sup>1</sup>**

In the Marine Corps Reserve, there are several categories for which adequate training allowances are currently not maintained. These include M1A1 tanks, Sensor Management Platoon equipment, MK19 grenade launchers, communications cryptological equipment, and night vision sights and goggles. Over the last three months, units have begun receiving a large percentage of the cryptological equipment and SINCGARS communications equipment to replace these deficiencies. This equipment was purchased with NGREA funds.

All units in the Marine Corps Reserve can accomplish unit training with the training allowance of equipment available to them. Continuing shortages of training allowance and Table of Allowance equipment exist. Improvements and upgrades of training equipment have continued since fiscal year 1991. Although delayed by Operations DESERT SHIELD/STORM, the integration of modern equipment into the Marine Corps Reserve continues.

Air National Guard shortages include mobile respirators, chemical analyzers, radio sets, microscopes, and monitors; radio receiver/transmitters, cots, and tent liners. Although some items are used to perform operational activities, their primary purpose is training. Most items have been identified within the existing budget process.

Combat Communications units in the Air National Guard do not have equipment that is coded for training. All assets assigned are assigned against operational requirements. On the other hand, Engineering Installation units do have a training equipment shortfall in the areas of electronic telephone switches, state of the art radar systems, digital wide-band radio equipment and meteorological-navigation systems required for maintenance training purposes. Air Force Communications Command, the gaining command, has not programmed or defined the training requirements for all the Air National Guard combat communication units.

The Air National Guard significant training equipment shortages exist within mission equipment required for the HH-60G, KC-135, C-130H, and F-16/F110 engine support equipment and the munitions area. Shortages of support equipment impact both the quality of

training and the overall readiness of the unit. Loans within the Air National Guard and the gaining commands are the only way a majority of units are converted/trained into new weapon systems.

The Air Force Reserve has no significant shortages of major training equipment such as airframes. However, munitions availability throughout the Air Force has been affected by a shortage of funds and production problems. Based on Operations DESERT SHIELD/DESERT STORM requirements and the increase in personnel requiring qualification training, the lack of ammunition for training has limited the Air Force Reserve's capability to have weapons-qualified personnel.

The Coast Guard Reserve has no significant shortages of training equipment. Most of the training is conducted on-the-job through the individual augmentation of Active component units using the training equipment of the gaining command. Major equipment shortages at the gaining Active component commands for the Reserve component are in patrol crafts and vehicles. Lesser items in short supply are secure hand held communication equipment, night vision devices, protective clothing, and safety, engineering, and electronics equipment. The only exceptions are the three deployable port security units (PSUs), which maintain their own equipment. Required operational capabilities and projected operational environments for the PSUs are currently being reviewed, and will form the basis for updated equipment requirements.

## Equipment Maintenance Backlogs

The Army National Guard experienced a significant increase of maintenance backlog from the return of equipment from Operations DESERT SHIELD/STORM. The maintenance backlog totaled \$53 million in fiscal year 1992. Current budget figures indicate reductions are programmed in the National Guard's maintenance program funding. The \$53 million reflects the shortage of funds for repair parts, an increase of equipment density, and a manning level funded at 60 percent of personnel requirements. An additional \$50 million remains unfunded for the conversions of 299 M113A1/A2's to M113A3's. With reduced resources and increased requirements, it is anticipated that future budgetary reductions

would increase the maintenance backlog. Such increase should not affect mobilization or readiness.

The Army Reserve had a maintenance backlog of \$5 million in fiscal year 1991 and approximately the same for fiscal year 1992. Under the planned budgetary reductions, maintenance backlogs are expected to increase to \$53 million in fiscal year 1994 and \$64 million in fiscal year 1995. These backlogs represent \$3.6 million (fiscal year 1994) for aircraft and \$36.5 million (fiscal year 1994) for automotive assets within the Reserves. These assets include the Service Life Extension Program for 2½-ton and 5-ton vehicles and the conversion of the M113.

Naval Reserve Forces (NRF) continue to manage both budget planning and execution. Both Naval air and surface Reserve Forces did not have a maintenance backlog for fiscal year 1992. However, the Naval Reserve may not be able to continue this trend solely through intensive management, but will require a fully-funded program. With budget reductions underway, maintenance backlogs are projected for fiscal year 1993-95. Regular ship maintenance is critical for maintaining readiness and mobilization preparedness. Ship maintenance plans are designed to minimize equipment failures by performing maintenance at regular intervals. Deferring maintenance will increase equipment casualties degrading readiness and preventing NRF ships from performing their primary mission of training Selected Reservists. Naval Air Reserve Forces will incur a shortage of \$29.2 million in Depot Level Maintenance. Budget reductions will create maintenance backlogs for Surface Reserve Forces in fiscal year 1994. In fiscal year 1994, two training frigates and one fast frigate is scheduled for overhauls that are currently unfunded, totaling \$16 million. In fiscal year 1995, two fast frigates and one training frigate have unfunded overhauls scheduled totaling \$21.5 million.

The Marine Reserve Force had a maintenance backlog of \$30,000 for fiscal year 1991 compared to \$950,000 for fiscal year 1992. Under the current and anticipated budget reductions, the Marine Reserve Force expects the dollar amount for maintenance backlogs to significantly increase, provided the operational tempo does not decrease.

The Marine Reserve Force continues to minimize maintenance backlogs by aggressively pursuing training assist visits, inspections, and policy updates. These items contribute to reducing maintenance backlogs. The equipment readiness goal for the Marine Reserve Force is 90 percent. During fiscal year 1992, equipment readiness was 85.6 percent. Budget reductions will increase the maintenance backlog and decrease the equipment availability and readiness. Consequently, the readiness and/or mobilization will be directly affected. Reductions could significantly impair the readiness of the Marine Reserve Force.

The Air National Guard and the Air Force Reserve did not have a maintenance backlog for fiscal year 1992, but the impact of current budget reductions is expected to create one. In previous years, equipment was inducted into depot-level maintenance by Reserve components. Costs were borne by the Air Force. As of fiscal year 1993, a separate appropriation was established for Reserve component depot-level maintenance costs. Additionally, maintenance levels for selected aircraft systems have been reduced from three to two. Due to the lack of historical data, costs estimates cannot be given until the end of fiscal year 1993.



## **Obsolete and Incompatible Equipment**

Obsolete and incompatible equipment is still maintained in the Reserve component inventory. Modification and conversion programs within the Total Force have and continue to minimize their effect. The ability of the Reserve components to effectively reinforce the Active components upon mobilization will be limited without continuing to modernize

weapons systems and equipment assigned to the Reserve components.

Table 6-11 lists obsolete and incompatible equipment which was maintained in the Reserve components' inventory during fiscal year 1992.

Active component Army commanders have shown a reluctance to deploy older generation systems to the battlefield. Even with the influx

**Table 6-11  
INCOMPATIBLE OR OBSOLETE EQUIPMENT  
MAINTAINED IN RESERVE COMPONENTS**

### **Army National Guard**

Analog Radio  
Antenna Mast AB621/ABJ77  
Circuit Switch TCC 39A  
D-7E Dozers  
Gasoline & Mack Diesel Powered Trucks  
M-101 Howitzers  
M113A2 Armored Personnel Carrier  
M114A2 Howitzers  
M48A5 AVLB  
M60A3 Tanks  
M880 Series Trucks  
Meter Calibrator  
Meter Test Set TS-682  
Multimeter TS-352  
Night Vision Sights AN/PVS2  
Oscilloscope AN/USM-11  
Radar Test Set AN/UPM-98  
Radio Terminal Sets AN/TRC 112  
Signal Generator AN/URM-64  
Tactical Radio Equipment  
Truck Tractors 10 Ton  
Trucks 1/4 Ton (Jeeps)  
UH-1M Attack Helicopters

### **Army Reserve**

Automatic Switchboard  
Comm-elect TMDE (1970's vintage)  
Tactical radio equipment

### **Naval Reserve**

A-6E (restricted aircraft)  
F-14 aircraft (outdated avionics, engines and structure)  
F/A-18A outdated electronic Countermeasures/radar  
P-3B electronic equipment  
SH-3H helicopters

### **Marine Corps Reserve**

M49A2C Truck, Tank, Fuel  
M50A2 Truck, Tank, Water  
M85 50 Caliber Machine guns

### **Air National Guard**

Analog telephone switchboard  
Analog wideband radios  
Communication equipment  
Electronic Countermeasure Pods  
Medical equipment  
Satellite terminal  
VHF radio not SINCGARS compatible

### **Air Force Reserve**

Electronic Countermeasures Pods

### **Coast Guard Reserve**

No equipment compatibility problems

Source: The Reserve components.  
Data as of September 30, 1992.

of equipment from force draw downs, many of the Army National Guard units will still be equipped with older generation systems. This means Army National Guard units must first be modernized, thus extending training time and consequently employment time to any future mobilization of forces.

Considerable progress was made in the Army National Guard during fiscal year 1992 to reduce obsolete and incompatible equipment. For example, the Army National Guard received the Multiple Launch Rocket System (MLRS), Single Channel Ground/Airborne Radio (SINCGARS) Set, M1 Tanks, Mobile Subscriber Equipment, Commercial Utility Cargo Vehicles and High Mobility Multipurpose Wheeled Vehicles.

Obsolete equipment, such as the M101 Howitzer, M1-48A5 AVLBS, M-60A3 Tanks, M-123 Truck Tractor, Medical Unit Self-Contained Transportable (MUST) Hospital Equipment and Vietnam-era medical equipment sets and helicopters, gasoline and Mack diesel powered 2½-ton and 5-ton trucks, are still being maintained in the Army National Guard. The current Army program addresses the replacement of some of these items. The Army National Guard Dedicated Procurement Program also attempts to correct equipment obsolescence, but only where there are readiness impacts. Medical equipment is being fielded as it becomes available. Large quantities of trucks are expected to be available from force draw downs and the howitzers should be replaced by fiscal year 1994. The other items will be in the Army National Guard inventory for the foreseeable future.

Most Army Reserve equipment obsolescence problems are within the engineer test, measurement, and diagnostic equipment (TMDE); special tools; fixed/rotary winged aircraft; gas model trucks; communications equipment; and watercraft. The Army Reserve still has over 200 gas-driven 5-Ton Trucks and 209 ¼-Ton Utility Trucks, and 305 gas-driven maintenance contact trucks. All these trucks are non-deployable. The Service estimates that the Army Reserve will be fully equipped with standard issued items by fiscal year 1997. These estimates assume that the Army Reserve will receive vast amounts of redistributed equipment, primarily from downsizing of the Army.

The Army Reserve Dedicated Procurement Program (DPP) has purchased over \$150 Million in state-of-the-art test and communication equipment. Significant DPP purchases to reduce equipment compatibility problems in fiscal year 1992 includes TROPO equipment modernization, SINCGARS, and communications-electronics test sets. Much of this equipment is scheduled to be fielded in fiscal year 1993.

There are significant obsolescence problems in the Naval Reserve. On completion of the Navy's transition to the SH-60F aircraft, the only SH-3H aircraft equipped squadrons with an anti-submarine warfare mission will be in the Naval Reserve. With no compatibility between the SH-3H and SH-60F, a ship's ability to logically support embarked SH-3H squadron detachments is extremely limited.

To maintain compatibility with the fleet, Naval Reserve F-14As must also be upgraded with the same avionics, engines, and radar equipment being explored for fleet counterpart aircraft. As the fleet completes the transition to the F/A-18C aircraft in fiscal year 1993, Naval Air Reserve units will be the only squadrons flying the F/A-18A. Particularly telling in operational and support compatibility will be the lack of deceptive electronic



countermeasures electronic warfare hardware, and the radar warning receivers on Naval Reserve aircraft. A Navy-wide A-6 wing fatigue problem has necessitated a major rewing upgrade program. To date, only seven Reserve A-6Es have been rewinged (of a total of 196 unrestricted aircraft) and only four of thirty-two are scheduled for the System Weapons Improvement Program modification program through fiscal year 1994.

Significant types of Fleet Hospital medical equipment have become obsolete due to technological advances. Presently, 12 of 28 MIUW units have old Radar Sonar Surveillance Center vans configured largely with obsolete equipment which is no longer fully supported within the Navy Supply System. Four units will receive new vans by mid-fiscal year 1993, but the remaining eight are still unfunded.

In the Marine Corps Reserve, the M85 50-caliber machine gun is not compatible with the Active component Assault Amphibious Vehicle (AAV) Upgunned Weapons Station. The Upgunned Weapons Station is a product improvement to ensure reliability, survivability, and combat capability. Replacement machine guns are being requisitioned for the Reserve components. All other equipment incompatibilities in the Marine Corps Reserve have been eliminated, with the exception of the M50A2 Tractor Water Tank and the M49A2C Tractor Fuel Tank. Horizontal fielding of new equipment to the Active and Reserve components will preclude equipment incompatibility. Concurrent fielding of new equipment to the Active and Reserve components will increase readiness and reduce post-mobilization training time significantly.

There are no major significant obsolescence problems in Air National Guard units. Items are annually reviewed and identified for replacement through the Air Force budget evaluation process. Obsolete items are provided a high priority and replacement is achieved in the earliest budgetary cycle. However, obsolescence continues to be a problem in the three Combat Communications areas: wide band communications, telephone switches, and SHF satellite equipment. The Tri-Service Tactical Area Communications (TRI-TAC) program will alleviate the first two problems. Anticipated redistribution of satellite terminals will provide interoperable, maintainable

terminals. The lack of standardized communications equipment, and the need to accept less than optimum capability in combat communications, will not be resolved until modern equipment is made available to Air National Guard Combat Communications and Tactical Control units in the required quantities.

Most of the equipment maintained by medical units is for training and is utilized within the unit. Air Transportable Clinics (ATCs) maintained for deployment purposes are standardized. Items maintained by Aeromedical Evacuation units are for training purposes. No equipment has been allotted to Air National Guard Aeromedical Evacuation units for deployment purposes.

Incompatible Electronic Countermeasures (ECM) equipment is still maintained in the Air National Guard. There are two kinds of obsolete ECM pods used exclusively by the Air National Guard. Neither of the pods is used or maintained in the Active component.

Overall readiness is degraded because obsolete and incompatible Reserve equipment does not integrate with modern Active Army systems. Army UHF/VHF radios will be required to provide secure communications on the battlefield as directed by the Joint Staff. The current family of radios in the Air National Guard does not integrate with systems currently being bought and fielded by the Active components.

Equipment obsolescence was not considered a problem in either the Air Force Reserve or the Coast Guard Reserve during fiscal year 1992.

*The Board recommends that the Department of Defense continue an aggressive equipment conversion program within the Reserve components as well as support through the National Guard and Reserve Equipment Appropriations to minimize the obsolete and incompatible equipment.*

## Automated Management Systems

A major effort is underway, within the Reserve components, to provide automated data processing support for management of personnel, training, and logistics. The goal is to provide a capability, using microcomputers at the local level, to interface with large centrally-

located systems. On-line communication and interaction with these larger systems are essential to reduce delays, improve efficiency of operation, and make current information available to various levels of command.

The Department of Defense continues to work with the newly-activated Reserve component systems to ensure that all applications and data sources are not only capable of interconnectivity, but also interoperable between the Active and Reserve components.

The following improvements were made in the Army National Guard automated management systems in fiscal year 1992 to enhance management of equipment/logistics programs: The Standard Army National Guard Maintenance Reporting System (SAMRS) was moved from the obsolete Burroughs 1955 computer to the Sperry 5000-80 computer. This move places SAMRS on a modern computer platform and expedites processing. TACCS SIDPERS computers were redistributed from Force Package 2/3 units to Force Package 1 units in the Army National Guard. This distribution significantly improved the logistical readiness capabilities in 360 units throughout the 54 states and territories. Planning for fielding of Unit Level Logistics Systems (ULLS) and the reprogramming of \$3.5 million (DPP) has been accomplished. ULLS will automate supply and maintenance functions at the unit level and thereby enhance Army National Guard readiness.

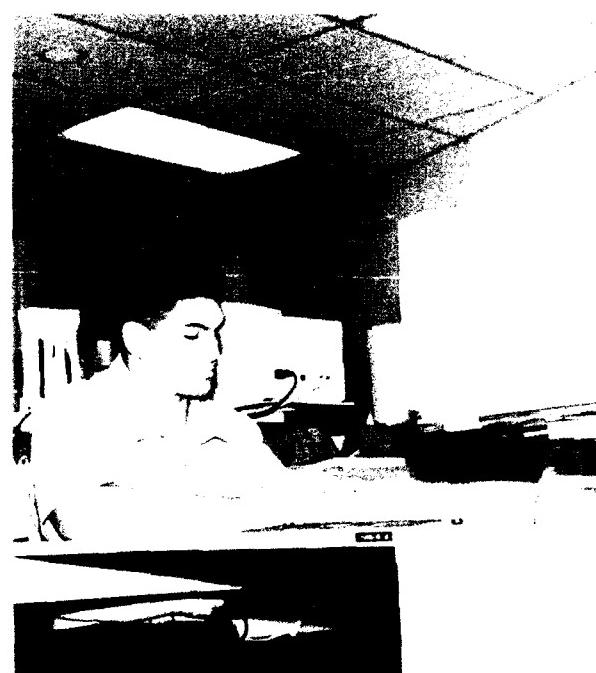
Automated logistics system support for the Army Reserve continued to improve in fiscal year 1992, within the parameters of Congressional and Defense ADP acquisition restrictions. Automated logistics management systems are critical to the Army Reserve's preparation and planning for mobilization/deployment. Development and fielding of supply, transportation, and logistics management systems must accurately reflect and support the Army Reserve's requirements and mission. The Reserve Component Automated System (RCAS) contract was awarded on September 30, 1991; work was begun on January 5, 1992.

In the Naval Reserve logistics area, three microcomputer software applications have been developed to support field activities. They

are Fund Administration and Standardization Document Automation (FASTDATA), Controlled Equipage Inventory System (CEIS), and the Naval Reserve Utility Clothing System (NRUCS). In addition, the Naval Reserve is in the process of implementing a Naval Aviation Logistics Command Management Information System.

FASTDATA was developed and implemented in 1989, and placed the Fund Administrator (FA) module and the Cost Center (CC) module at Naval Reserve field sites for production use. FASTDATA perpetuates accounting data between the Naval Reserve Financial Information Center, field activity comptrollers, and cost centers. It also automates budget preparation, execution, and reporting requirements.

The Naval Reserve logistics initiatives have no impact on the mobilization of the Naval Reserve Force; however, they do impact readiness and have resulted in further automation of Naval Reserve Force field-level supply requisitioning. This, in turn, results in the timely processing and issuance of requested supplies and allows for realistic maintenance of supply stock points. In addition, Naval Reserve initiatives have automated the accounting, management, and control of minor and plant property. All aspects of the outputs derived from production use of the logistics initiatives directly affect Naval Reserve readiness.



Major improvements for the Marine Reserve Force in the area of logistics automated information system (AIS) were made in fiscal year 1992. The implementation of three mainframe-based automated information systems were initiated to provide automated logistics service support to all major subordinate commands of the Marine Reserve Force: the Marine Corps Integrated Material Management System; Phase I of the Supported Activities Supply System Modernization; and the Standard Accounting, Budgeting, and Reporting System. These systems comprise the major automated management tools for maintenance, supply, and fiscal management for the Active component. The implementation of these systems achieved standardization and interoperability with the Active component in their respective functional areas.

The progress made to date in this area has greatly improved the Marine Reserve Force readiness by standardizing systems throughout the Total Force and providing a faster, more accurate means of assessing the level of readiness. From a mobilization perspective, units are better prepared to deploy and integrate with the Active component logistically, without placing additional support requirements on the Active component.

All the Air Force automated management systems are used by the Active components and are completely interoperable between the Active and Reserve components. These programs improve the supply system by ensuring that needed supplies are on hand should activation of the Reserve components become necessary.

In the Air National Guard, three newly-introduced computer systems have enhanced transportation functions: the Automated Fleet Information System, the Major Command Automated Fleet Information System, and an electronic mail delivery system connecting units. These systems eliminate paperwork, reduce mailing costs, speed up staff work, and improve communication. They also integrate with the Active component's systems.

In the Air Force Reserve, MICAP Asset Sourcing System interfaces with the Standard Base Supply System (SBSS) and is used to locate

mission-critical parts from bases worldwide. Air Force Reserve bases, which had not implemented MICAP Asset Sourcing System in previous fiscal years, were brought on-line in fiscal year 1992.

The Automated Individual Equipment Unit is a system which consists of a microcomputer and associated software that is used to perform daily transactions. This automated system allows unit personnel to record and maintain database records of items maintained on the Personal Clothing and Equipment Record, and the Personal Clothing Record.

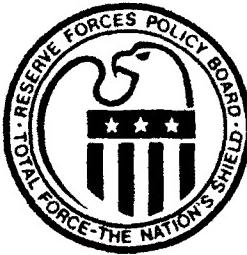
No changes have been made to the Coast Guard automated logistics management system. The Coast Guard Reserve uses the Active component logistics management system.

## Deployable Medical Systems Equipment

The Deployable Medical System (DEPMEDS) equipment consists of standardized modules such as operating rooms, laboratories, x-ray facilities, and patient wards. It can be used by all Services and can be configured to varying types or sizes of hospitals or clinics. The system uses the latest medical technology, expendable supplies, and non-medical support equipment. It is fully transportable by military systems.

The total number of DEPMEDS sets programmed for the Army National Guard decreased due to force structure reductions from twenty-six hospitals to seven by fiscal year 1995. Four Minimum Essential Equipment for Training (MEET) sets were issued to Army National Guard units in fiscal year 1992. No complete hospital sets were issued against Army National Guard requirements in fiscal year 1992. The Army National Guard will have an adequate number of equipment sets available for deployment after the programmed drawdowns are completed in fiscal year 1994.

Thirteen hospitals were fielded with DEPMEDS equipment to the Army Reserve during fiscal year 1992. The mobilization readiness of individual Army Reserve hospital units has increased due to earlier than scheduled fieldings based upon force structure reductions during fiscal year 1992.



## Facilities



*"As the Active force is reduced in size, with many missions transferred to the two Reserve components, our supporting facility structure must be adjusted accordingly . . . we need to focus on the cost-saving potential of proper maintenance and repair of our physical plant, which can result in significant savings by preventing more costly repairs in the future."*

*Mr. James F. Boatright  
Deputy Assistant Secretary of the Air Force  
March 1992*

## **General**

Reserve component facilities range from individual Reserve centers and armories to regional equipment maintenance centers and support facilities to large installations. Reserve components train in more than 5,400 facilities in approximately 4,700 communities located across the Nation and overseas. Although over \$3.5 billion has been appropriated in the last six years to sustain these facilities, sufficient military construction funding must be made available to build new facilities, where required, and to repair and maintain present facilities.

Some Reserve centers are located on large military installations and others serve as joint-use facilities. The preponderance of armories and Reserve centers are located in civilian communities. They are necessary for administration, training, and mobilization of our Reserve components. Many of these facilities are shared with the Reserve components of other Services and a number are used specifically for the storage and maintenance of Reserve component equipment. Joint use of facilities by the Reserve components can reduce operating costs by using space more efficiently.

For reasons of economy and efficiency of operations, joint use of facilities by more than one Reserve component has been emphasized by the Department of Defense in recent years. All new construction is evaluated for potential joint-use. Approximately 1,200 facilities are shared by two or more Reserve components, and many of the Air National Guard and Air Force Reserve units share facilities together. Joint facility use is not an immediate panacea since most existing facilities are sized to accommodate only one unit. The Air Force Reserve and the Coast Guard Reserve units often share facilities with Active component units, and the Naval Reserve and Marine Corps Reserve units are often collocated at the same facilities.

These Reserve component facilities represent a substantial capital investment. The cost to replace existing facilities would be approximately \$35 billion. Table 7-1 provides additional details on Reserve component facilities in fiscal year 1992.

The facility closures in fiscal year 1992 eliminated the Army National Guard presence in several communities. The majority of the closures were due to Army force structure reductions and reorganization/consolidation of units. Consolidating units and equipment causes overcrowding of existing facilities and storage areas, and constrains training resources and available space. The greatest impact resulting from these closures was on Army National Guard training.

Four Naval Reserve facilities were closed in fiscal year 1992. The Naval Reserve plans to close or consolidate approximately six facilities in fiscal year 1993 and similar numbers in both fiscal year 1994 and fiscal year 1995. These closures and consolidations should actually make training more efficient and cost effective for the Naval Reserve as older and smaller centers are closed and training is consolidated at larger, more capable facilities.

The Marine Reserve manages 195 separate facilities. One facility was closed in fiscal year 1992 and the Reserve unit was relocated. There are thirteen facilities proposed to be deactivated during fiscal year 1993 through fiscal year 1995.

The Air National Guard manages facilities at 160 locations with one installation scheduled to close in fiscal year 1994. The Air Force Reserve manages facilities at 71 locations with one installation scheduled to close in fiscal year 1994. These closures will have minimal impact on the ability of the Reserve components to accomplish their wartime mission.

Attention needs to be paid to the adequacy of Reserve facilities as additional missions are transferred to the Reserve components. The morale, security, and retention of quality personnel is affected by inadequate facilities. Inadequate facilities also have an adverse impact on readiness and mobilization.

## **Adequacy of Facilities**

Many of the current Reserve component facilities are considered inadequate. Adequate facilities are essential to the administration, training, and mobilization readiness of the Reserve components. Renovation or new construction becomes necessary when a facility's functional obsolescence, physical

**Table 7-1**  
**RESERVE COMPONENT FACILITIES**

	Total Facility Locations	Number of Separate Communities	Number of Buildings & Structures	Number Jointly Used
Army National Guard	3,305	2,720	25,854	362
Army Reserve	1,466	1,310	2,184	176
Naval Reserve	255	240	1,830	154
Marine Corps Reserve	195	195	690	318
Air National Guard	160	160	5,200	47
Air Force Reserve	71	71	762	63
Coast Guard Reserve <sup>1</sup>	0	0	0	0
<b>Total DoD</b>	<b>5,452</b>	<b>4,696</b>	<b>36,520</b>	<b>1,120</b>

**Notes:**

1. Coast Guard Reserve units share space with Active component commands and/or Department of Defense Active and Reserve component training centers.

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.

Data as of September 30, 1992.

deterioration, or overcrowding adversely affects the user's mission.

Operating costs for Reserve component units can be reduced and unit readiness improved when units operate from modern and efficient facilities. When the Reserve components were surveyed to evaluate the adequacy of their existing facilities, the common threads which define inadequacy are:

- physical deterioration, structural limitations, or lack of capacity of the utility systems,
- functional obsolescence which impedes the current missions,
- lack of minimum essential space for the assigned people to work,
- lack of proper storage for individual and unit equipment, and
- absence of a particular type of structure to accommodate new or expanded mission requirements.

Each Reserve component evaluates adequacy from a slightly different perspective.

- The Army National Guard and the Army Reserve generally have the oldest facilities and suffer from overcrowding and lack of

storage and maintenance space. Larger units with more and larger equipment have outgrown existing facilities.

- The Naval and Marine Corps Reserve have used a strategy of consolidation to eliminate many of their most inadequate facilities. But many old, dysfunctional facilities remain.
- The Air National Guard and the Air Force Reserve often face major aircraft conversion milestones that necessitate major changes in aircraft test and repair requirements. The facilities which supported the previously assigned aircraft, while not necessarily deteriorated, are ill-suited to properly support the newly assigned aircraft.

The percentage of facilities considered inadequate by each Reserve component, in fiscal year 1992, is shown below:

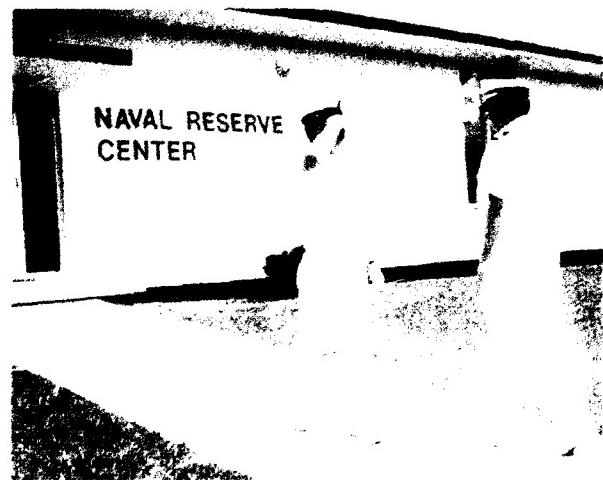
<u>Component</u>	<u>Percent Considered Inadequate</u>
Army National Guard	37%
Army Reserve	25%
Naval Reserve	28%
Marine Corps Reserve	40%
Air National Guard	
Air Force Reserve	

The percent shown for the Army Reserve does not include many inadequate leased facilities. See the section on leased facilities for further details.

The Army National Guard has a total of 25,854 buildings located at 3,300 installations. Thirty-seven percent of these buildings are inadequate. Included in the Army Guard's buildings are 2,084 armories, 47 percent of which are inadequate. These buildings are inadequate due to excessive deterioration, and are undersized to meet force structure changes. Major additions and rehabilitations are required to 683 of the buildings. The remaining 766 require new replacement facilities.

Twenty-five percent of the Army Reserve's 2,184 buildings are considered inadequate. The primary reasons attributed for inadequacy are physical condition due to age, and functional obsolescence. Many of the Reserve centers are in need of revitalization and upgrading. Size, in some cases, has created inadequate conditions. Expansion and/or replacement of these facilities is needed.

In the Naval Reserve, 28 percent of the 1,830 buildings are considered inadequate. Eleven percent are inadequate due to size; 11 percent are inadequate due to condition; and 6 percent are inadequate due to both size and condition. There is currently no significant impact on readiness or mobilization due to inadequate facilities. However, the Naval Reserve military construction funding levels substantially decreased for fiscal years 1994-99, which will cause a significant increase in the number of inadequate facilities in the next five years.



Approximately 40 percent of Marine Reserve buildings contain various inadequacies. Presently, all Marine Reserve units can accomplish their mission using the inadequate facilities.

Marine Corps Reserve facilities that are inadequate due to age include Quonset huts, 50 year old buildings, and obsolete buildings constructed of metal. There are others which are structurally sound but require substantial amounts of operational and maintenance funds to maintain.

Undersized facilities are currently being addressed with Military Construction projects for additions. However, due to the anticipated future closures, relocations, and redesignations of Marine Corps Reserve facilities/units, some facilities may be required to support several different units, exacerbating the size constraints within the reserve centers.

The majority of Air National Guard's 5,200 buildings are considered inadequate. In excess of 64 percent of their facilities are below standards. Major factors are age, size, location, and condition. Approximately 50 percent of the facilities are undersized, poorly configured for the mission, or are improperly located for effective and efficient use. Approximately 11 percent are nearly 50 years or older. Insufficient military construction funds preclude the relocation or replacement of antiquated buildings.

Thirty-four percent of the Air Force Reserve's 762 buildings are inadequate. Major negative factors are condition and location. The average Air Force Reserve facility is 27 years old



and a significant number of World War II and Korean War vintage facilities make up the current inventory. Many facilities initially constructed to support propeller driven aircraft have been pressed into use to support turbo-prop and jet aircraft. Infrastructure needed to support operation of these aged facilities, such as pipelines and electrical power transmission systems, is quickly approaching the end of its useful life as well, and is in need of immediate repair, revitalization, and in some cases full replacement.

*The Board believes that inadequate Reserve component facilities have a negative effect on training and readiness, and hinder recruiting and retention efforts.*

## Military Construction

Many Reserve component facilities need dedicated major construction funds to replace or renovate existing buildings. Annually, each Reserve component programs military construction (MILCON) dollars to support new and expanded missions, unit relocations, and equipment additions and conversions associated with force modernization. Generally, however, the Services' MILCON programs are underfunded.

MILCON appropriations are also used to replace obsolete Reserve component facilities. Delays in providing adequate facilities to the Reserve components can affect unit readiness,

recruiting, retention, and morale. Further, delays in replacing obsolete facilities can often result in additional operational costs due to inefficient workarounds.

The Department of Defense has exercised special controls over the execution of military construction and land acquisition in fiscal year 1992. In their current form, the controls serve as a final check on the project's necessity and do not artificially impede the initiation of a project. The Reserve components reported a total of 155 projects completed and accepted for their use during the fiscal year. Details are shown in table 7-2.

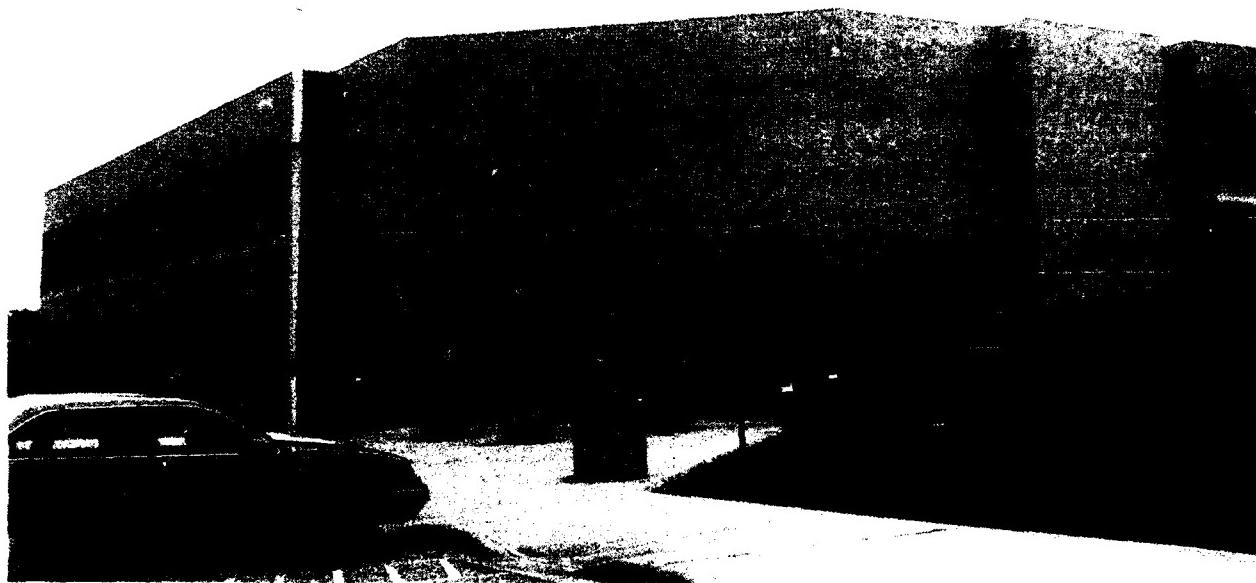
The number of projects completed in fiscal year 1992 was less than fiscal year 1991. The decrease in completed projects, during fiscal year 1992, was due to the moratorium on new construction starts established by the Secretary of Defense. The purpose of the moratorium was to give DoD an opportunity to assess the effects of the planned force structure changes on the need for facilities at existing bases and installations. Only the most urgently needed projects were released for construction.

In the Army National Guard, 47 projects were completed by the end of fiscal year 1992. Examples of major construction projects completed were: seven armories, seven surface maintenance facilities, five training site support facilities, two rifle ranges, two logistics facilities and one Army aviation facility.

**Table 7-2  
MAJOR CONSTRUCTION PROJECTS COMPLETED**

	<u>FY 91</u>	<u>FY 92</u>
Army National Guard	104	47
Army Reserve	12	5
Naval Reserve	6	11
Marine Corps Reserve	2	10
Air National Guard	50	69
Air Force Reserve	22	13
<b>Total Number Completed</b>	196	155

Source: The Reserve components.  
Data as of September 30, 1992.



In the Army Reserve, five major construction projects were completed in fiscal year 1992. Examples of these projects include an Army Reserve Center and Organizational Maintenance Shop, a new storage facility, an Army Reserve Readiness Training Center, and a Regional Maintenance Training Site. No projects were delayed in the Army Reserve during fiscal year 1992 because of budget restrictions.

The Naval Reserve's backlog of construction projects at the end of FY 92 is \$998 million. Eleven major construction projects were completed in fiscal year 1992. Examples of the projects completed include an operations storage facility, a Reserve center addition, a relocate transmitter/receiver building, an aircraft start system, an aircraft power check pad, and a reserve acquisition center. Sixteen projects are scheduled for completion in fiscal year 1993. Seven additional major projects were planned for completion in fiscal year 1992, but, due to budget restrictions, (MILCON Moratorium) these projects have slipped to fiscal year 1993.

The current impact of this issue on Naval Reserve readiness and/or mobilization is negligible, but underfunding of MILCON in the outyears will eventually have an impact on retention and readiness if some of the funding lost cannot be restored.

The 10 major construction projects the Marine Corps Reserve completed in fiscal year 1992 include construction of weapons storage areas, construction of wash pads with oil/water/sand separators, construction of gun sheds, and several building additions and improvements. Fifty-nine projects are scheduled for completion in fiscal year 1993.

The Air National Guard completed 69 projects during fiscal year 1992 and estimates that 190 projects will be completed during fiscal year 1993. Examples of the completed projects include a base supply warehouse, a multi-media facility, a precision measuring equipment laboratory, and a fire suppression system. No Air National Guard projects have been delayed due to budget restrictions. However, the Air National Guard continues to feel the effects of the MILCON moratorium and/or prohibition on projects scheduled for fiscal year 1992 and earlier.

In the Air Force Reserve, 13 current mission projects and 1 Base Realignment and Closure Commission (BRAC) major construction project were completed in fiscal year 1992. Twenty current mission, 15 new mission, and 17 BRAC major construction projects are scheduled for completion between fiscal years 1993 and 1994. Examples of projects completed in fiscal year 1992 include a security police operations

facility, a civil engineering training facility, a Reserve forces operations and training facility, a medical training facility, the addition of fire protection to an aircraft hangar, and major improvements to a Reserve squadron operations facility. No projects were delayed in because of budgetary constraints.

The Department of Defense recognizes the need for modern, efficient facilities for all of its activities. But the Department of Defense decided to fund the Reserve component MILCON program in fiscal year 1992, at levels significantly less than the Congress had suggested in previous committee reports. The

Department of Defense's position is that its budget represents a balanced approach to MILCON requirements for Active and Reserve components. Congress, however, made major additions to its fiscal year 1992 Reserve component construction program budget requests.

In fiscal year 1992, as noted in Table 7-3, \$629 million was appropriated against a Department of Defense request of \$282 million. And, most of those additional MILCON appropriations supported the readiness and mobilization capability of the Reserve components.

**Table 7-3**  
**RESERVE COMPONENT MILITARY CONSTRUCTION FUNDING**  
(Dollars in millions)

	<b>FY 91</b>	<b>FY 92</b>	<b>FY 93</b>
<b>Army National Guard</b>			
Military Construction Request	66	50	47
Military Construction Appropriation	313	231	210
<b>Army Reserve</b>			
Military Construction Request	59	58	31
Military Construction Appropriation	77	110	42
<b>Naval and Marine Corps Reserve</b>			
Military Construction Request	50	21	38
Military Construction Appropriation	80	60	15
<b>Air National Guard</b>			
Military Construction Request	67	132	173
Military Construction Appropriation	181	218	288
<b>Air Force Reserve</b>			
Military Construction Request	38	21	53
Military Construction Appropriation	39	10	30
<b>DoD<sup>1</sup> Reserve component Total</b>			
Military Construction Request <sup>2</sup>	280	282	342
Military Construction Appropriation	690	629	585

**Notes:**

1. The Coast Guard Reserve does not have Military Construction Funding.
2. The military construction request for FY93 included \$155 million for minor construction and repair projects previously budgeted in the operations and maintenance request. The Congress did not support moving those projects into the construction appropriation.

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.

Data as of November 25, 1992.

For fiscal year 1993, Congress appropriated \$585 million, again a substantial increase to the Department of Defense's \$342 million request.

For the six-year period including fiscal years 1987-92, \$3.66 billion has been appropriated for Reserve component facilities. Some of this money has gone to construct facilities that support new missions, especially in the Air National Guard and the Air Force Reserve. The remainder has been used to improve the facilities of existing units and to enhance maintenance and mobilization capabilities. While there still are many Reserve component facilities in need of renovation, expansion, or replacement, the Board notes the current high state of unit readiness brought about, in part, by these modern facilities.

*The Board recommends that:*

- *the Department of Defense provide adequate funding for Reserve component military construction.*
- *adequate facilities be constructed and upgraded, as necessary to support training, storage, and administrative requirements of the Reserve components.*
- *Department of Defense policies be reviewed to ensure that Active and Reserve component military facilities and equipment are made readily available to*

*support drug demand reduction programs in the civilian community.*

## Construction Backlog

The Board recognizes there will be important Reserve component facilities implications associated with pending DoD force structure, force mix, end-strength, and base structure changes. In some cases, missions transferred to the Reserve components from the Active components will require substantial new construction to support new force structure. In other cases, units leaving the force structure may present an opportunity to consolidate or move from leased facilities into Service-owned facilities. Where Reserve component enclaves are established at Active component bases to be closed, maximum use will be made of existing facilities, but some new construction may be required for efficient consolidation and maximum return on disposal of excess acreage.

The Reserve components report a total construction backlog of \$7.7 billion as of the end of fiscal year 1992. The listing by component is shown in the Table 7-4.

The Army National Guard's military construction backlog/unfunded requirements at the end of fiscal year 1992 totaled about \$3 billion, representing approximately 2,000 construction projects. The Army National Guard will continue to accomplish its missions

**Table 7-4  
CONSTRUCTION BACKLOG  
(Dollars in billions)**

	<u>FY 91</u>	<u>FY 92</u>
Army National Guard	3.02	2.75
Army Reserve	2.33	1.92
Naval and Marine Corps Reserve	1.10	1.14
Air National Guard	1.54	1.57
Air Force Reserve	0.47	0.32
<b>DoD Reserve component Total</b>	<b>8.46</b>	<b>7.70</b>

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.  
Data as of September 30, 1992.



regardless of the lack of facilities. Maximum utilization of existing facilities, leasing facilities, and the use of temporary facilities are some of the steps being taken during the interim as the Army National Guard awaits the new construction or expansion of existing facilities.

The Army Reserve "backlog" or "unfunded requirements" for military construction at the end of fiscal year 1992 was \$1.9 billion. The Army Reserve military construction backlog is the result of unfunded facilities requirements generated over more than a decade of changes in force structure, procurement of new equipment, training initiatives, and shifts in population. The fiscal year 1993 construction budget is constrained and will not reduce the backlog. Total Obligation Authority funding for fiscal year 1993 is projected at \$42.2 million, of which \$23.6 million is for major construction.

The Naval Reserve's backlog of MILCON projects at the end of fiscal year 1992 is about \$1 billion. Seven major constructions were far enough along in design or real estate planning to be executable in fiscal year 1993, but were not included in the budget for fiscal year 1992 due to funding constraints.

The Marine Corps Reserve construction "backlog" at the end of fiscal year 1992 was approximately \$14 million. This backlog consisted of projects ready to advertise starting with fiscal year 1993 decision projects in design, and projects with Engineering Service Requests initiated. The effects on existing missions will remain the same: lack of storage

space at some sites and training time lost transporting units to remote training areas. Equipment cleaning and maintenance will suffer for the same reasons. As additional missions are absorbed by the Reserve component, personnel will be tasked with even greater responsibilities in maintenance and administration.

The unfunded MILCON requirements for the Air National Guard exceeded \$1.5 billion. The acceleration of Air National Guard conversions to F-16s has resulted in the need for over \$50 million in facility upgrades and modernization. The majority of the projects are late and interim "workarounds" are being utilized. A large portion of the Air National Guard MILCON program continues to be dedicated to providing the facilities required to meet accelerated aircraft conversion and new missions. New environmental requirements, mandated by law, are adversely impacting the Air National Guard's ability to address the current mission facility requirements for replacing and modernizing their aging physical plants. Operating from outdated, substandard facilities results in inadequate or improper training of our units and does not afford the opportunity to maintain the highest degree of readiness.

The Air Force Reserve unfunded MILCON backlog at the end of fiscal year 1992 was approximately \$320 million. This represents current mission deficiencies and deficiencies resulting from new missions and taskings, nine aircraft beddowns, and conversions scheduled between fiscal years 1993 and 1995. The Air

Force Reserve currently has significant deficiencies in aircraft maintenance, supply, and training facilities. These deficiencies will continue to exist for the foreseeable future in light of the low funding levels currently available for current mission MILCON.

Quality facilities are essential in developing pride, professionalism, and quality performance. Excellence is more readily achieved when people are proud of their facilities; whereas, poor facilities and supporting infrastructure not only degrades mission readiness but also lowers morale.

### **Reserve Component Investment Strategy**

The cost to renovate or replace all inadequate buildings is too large to expect a quick fix. Given the current uncertainties in the post-Cold War force structure, and the ongoing evaluation by the Congressionally-directed Base Realignment and Closure Commission, a massive infusion of construction dollars would probably not be wise at this time. However, the Department has a strategy to methodically provide replacements for currently inadequate or nonexistent required facilities while at the same time keeping up the quality of the existing, adequate inventory.

For several years, the Board has supported a facilities investment strategy that sought to reduce the backlog by four percent a year and put the physical plant on a 50-year renewal cycle. Table 7-5 shows the funding required in terms of an annual investment to achieve that goal. The Board continues to believe it is a sound investment strategy, but also believes, that the Reserve components should review and validate their construction backlogs to ensure the funding strategy remains a credible measure of resource allocation adequacy.

Proposed force structure reductions in the Reserve components and the possibility of facilities becoming available to the Reserve components due to base closures should continue to reduce the backlog. The precise effects, however, are not known at this time.

The fiscal year 1992 President's Budget requested about 30 percent of what was required by this strategy. However, the resulting Congressional appropriations for fiscal year 1992 amounted to 67 percent of the requirement. Much of this non-requested construction funding provided needed facilities upgrades. The problem with such major unprogrammed increases is that the Department's MILCON program, both Active and Reserve, becomes out of balance.

**Table 7-5**  
**RESERVE COMPONENT FACILITIES INVESTMENT STRATEGY**  
(Dollars in millions)

	Military Construction Backlog	Yearly Reduction	Plant Value	Yearly Renewal	Yearly Investment
Army National Guard	2,750	110	13,300	266	376
Army Reserve	1,920	77	3,671	73	150
Naval and Marine Corps Reserve	1,144	46	3,970	80	126
Air National Guard	1,566	63	11,400	228	291
Air Force Reserve	320	13	3,200	64	77
<b>DoD Reserve component Total</b>	<b>7,700</b>	<b>309</b>	<b>35,541</b>	<b>711</b>	<b>1,020</b>

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.  
Data as of September 30, 1992.

Substantial funding of the Reserve components MILCON program has been made in the amount of \$3.66 billion in the last six years to reduce the backlog. The major countering factor has been mission shifts from the Active component to the Air National Guard and Air Force Reserve that have generated substantial requirements for unanticipated new construction.

The Board recognizes that investing \$1.02 billion on facilities per year, for the foreseeable future, is a major commitment. And as stated earlier, there is some uncertainty in the unfunded requirements portion of the formulation because of ongoing force structure and force mix decisions in the Reserve components. As indicated in Table 7-3, the \$690 million appropriated for Reserve component construction in fiscal year 1991, the \$629 million in fiscal year 1992, and \$585 million appropriated for in fiscal year 1993 seems to be an appropriate level of programming until the final recommendations of the Base Realignment and Closure Commission are published. The current strategy is in line with the Department of Defense's strategy through fiscal year 1992.

During the 1980s and continuing into the 1990s, Air Force Reserve MILCON funding was focused on supporting new mission requirements, thereby leaving insufficient funding for upgrading and replacement of the basic facility/utility infrastructure. The Base Realignment and Closure Commission process underway now exacerbates this deficiency by adding management responsibility on the Air Force Reserve for three new bases, with no commensurate increase in available MILCON funding for physical plant revitalization, repair, and replacement. The BRAC funding does not correct existing deficiencies to retain infrastructure and utilities at installations that will be operated by Air Force Reserve units after Active component departure. This will increase the requirements against which limited MILCON funds are matched. By fiscal year 1995, replacement cost for all Air Force Reserve facilities will be in excess of \$3.3 billion. This replacement value and a desired replacement cycle of 50 years should provide a current mission MILCON funding level of \$66 million per year. The current funding of \$21 million per year falls well short of this goal and yields a replacement cycle approaching 150 years.

*The Board recommends that additional Reserve component military construction funding be provided, as required, to reduce backlogs in construction and maintenance repair projects.*

## Leased Facilities

Leasing is a cost-effective solution to meet the immediate needs of newly-formed Reserve component units and to alleviate short-term storage problems until the military construction programming cycle can provide permanent facilities.

Programming for new Reserve component units through the Services planning, programming, and budgeting system includes facility construction and the leasing of facilities as an integral part of the start-up cost equation. The use of leased facilities has proven to be a short-term solution for the Reserve components faced with new construction, renovation or expansion of existing facilities. Until new construction can be completed, either existing facilities must be temporarily modified for unit use or adequate facilities must be leased.

In fiscal year 1992, there were 699 Department of Defense-leased facilities for the Reserve components, costing \$47 million, shown as follows:

Army National Guard	71
Army Reserve	608
Naval Reserve	14
Marine Corps Reserve	6
Air National Guard	0
Air Force Reserve	0
<b>DoD Total</b>	<b>699</b>

Federal leases for Army National Guard facilities are currently \$6 million annually. Due to the high cost of current leases, federal funds are rarely used to lease additional facilities for new Army National Guard units. Facilities for a new Army National Guard units are the responsibility of the accepting State. Normally, the State will assign a new unit to an existing armory or temporary facilities until programmed military construction can provide permanent support facilities.

The Army Reserve continues to require the largest number of leases to meet its facility needs. Some benefits may be derived from the

availability of Active component facilities vacated as a result of force structure reductions and from the opportunity to retain Reserve enclaves on Active component bases selected to be closed. Meanwhile, this is an area of expenditure that should be closely monitored, as the cumulative expense of the Reserve components' leases is placing extraordinary demands on operations and maintenance funds. Such funds could be used for the maintenance of existing facilities or other important programs.

When new Reserve component units are activated or existing units are relocated, adequacy of facilities to house these units and to provide secure storage is always of primary concern. In the case of leased facilities, availability of secure storage space for both unit and individual equipment is a fixed requirement. Storage for arms/weapons at a leased facility is not always included in the leased requirement, since it may not be economically feasible to alter a leased facility to accommodate weapons.

## Base Closures

The Base Realignment and Closure Commission was established to consider base closure recommendations from the Secretary of Defense. Only installations which employed more than 300 full-time civilians were eligible to be included on the Secretary's list. Initially, Reserve component installations and facilities were not included in this review. However, the Reserve components worked closely with their parent Services during the review process.

Reserve component training and readiness is a major concern with reference to potential impact of base closures. Some base closure decisions may have positive impact if facilities currently used by Active components become available for Reserve component use. However, a Reserve unit relocated to a military installation must be supported by the recruiting demographics of the area. Reserve units located in civilian communities adjacent to military installations marked for closure may be affected if that installation provides support services. There may be an adverse impact on individual units if adequate replacement facilities are not located and funded in a timely manner. The Board anticipates that expanded opportunities for consolidation and joint use will occur.

*The Board continues to urge that consideration be given to the impact of base closures on the Reserve components.*

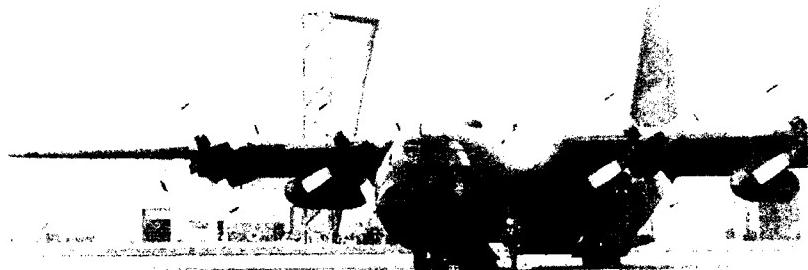
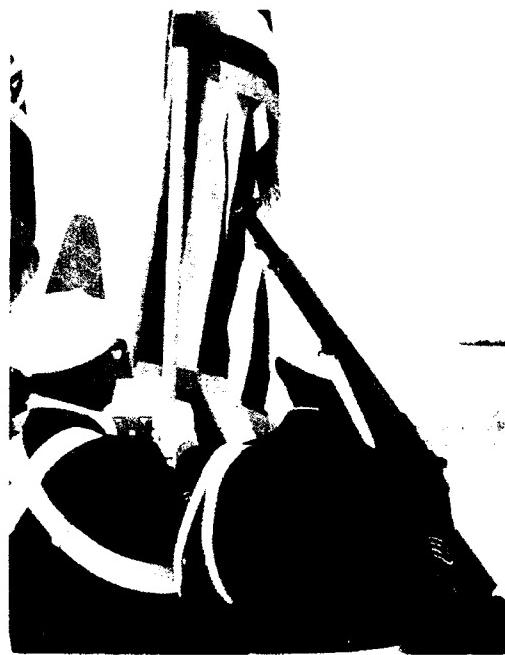
*The Board recommends that the Reserve components use the current base closure commission process as an opportunity to review Active component facilities from the standpoint of consolidation and closure.*

In the Army National Guard, the primary impact of base closures is the loss of training areas which will worsen as more bases are closed. The greatest impact is at bases with the primary mission of supporting the Reserve components. Without additional resources, the Army National Guard could not assume the operation of those bases.

The Army Reserve has worked closely with all elements involved with BRAC to insure that Army Reserve needs are fully addressed. The relocation of units currently housed in leased facilities to enclaves at BRAC installations is continuing to be closely scrutinized. Unlike the procedure established for the 1988 Base Realignment and Closure Commission (BRAC I), which required the Army to fund the bases, BRAC 91 required the Army Reserve to provide the funds. Approximately \$12.5 million has been transferred to meet the Army Reserve requirements.

Transfer of installations to the Army Reserve is a viable concept. With the creation of the U.S. Army Reserve Command and alignment of the base operations support responsibilities at the Army Reserve Commands, ownership of installations that directly support Reserve component training is logical. However, any decisions to transfer installations to the Army Reserve should be preceded by a thorough consideration of all resource implications. Initiatives are being pursued that will allow the Army Reserve to take advantage of Air Force and Navy BRAC properties if economically feasible. It appears that significant cost savings in some instances can be obtained by eliminating substandard, costly leases. This initiative will continue to be worked through the outyears.

Base closure actions had no impact on the Naval Reserve in fiscal year 1992. In fiscal year 1993, the projected impact of base closure actions is insignificant. Projected impact in the



outyears with regard to BRAC I and II closures should be minor. Obtaining adequate O&M funding for added Base Operating Support will become increasingly important as Reserve units are moved from Navy bases to the local community or onto bases managed by other non-Navy components. It currently appears that the Naval Reserve will be adequately funded for all necessary facility construction and modification costs associated with relocating units.

The Naval Reserve does not plan to take over any Active component installations as a result of BRAC I or II closures. However, it does plan to consolidate numerous Reserve units at Fort Dix, New Jersey, since building space is available and the base has proven to be an excellent mobilization site.

Only one base closure impacted the Marine Corps Reserve in fiscal year 1992, and it had no impact on readiness or force structure. The fiscal impact based on projected fiscal year 1993 closures is estimated at \$2.6 million which includes costs of relocating and redesignating units. The readiness impact is difficult to assess quantitatively; however, redesignated units will require retraining to meet their new wartime missions.

The Air National Guard has not been significantly impacted by base closures and realignments. BRAC I (1988) closure actions have impacted the Air National Guard in

causing units to consolidate operations and to relocate to new locations. Closures in process for fiscal year 1992 will have a considerable impact on Air National Guard medical units. A continuing focus on medical support of flying units will require additional O&M funding to ensure that all Air National Guard personnel remain "worldwide qualified." There could be a negative impact if appropriate support is not maintained for medical units at all 92 flying locations.

Unit relocations, due to base closures and realignments, presently have no adverse impact on unit readiness. Current base closure actions do not propose any Active component installations to be transferred to the Air National Guard. The projected out-year impacts will be determined by future base closure and realignment actions.

No effect on Air Force Reserve combat readiness or mission capability is expected as a result of base closure actions. Operations at Rickenbacker ANGB and Norton AFB will be relocated to Wright-Patterson and March AFBs, respectively. The initial uncertainty over cantonment arrangements following closure of the facilities at Bergstrom, Carswell, and Grissom Air Force Bases is being resolved, but final cost determinations are impossible until all details have been identified and closed.

No Coast Guard base closures have affected the Coast Guard Reserve.

## Equipment Storage Facilities

Lack of adequate storage space causes premature aging and excessive deterioration of equipment which leads to higher operating costs and reduced training.

The selection of a storage facility for Army major-end items is based upon requirements for security, protection from the environment, and protection against theft or damage. A majority of the vehicles are stored on hard-surface areas enclosed by fencing. Items such as radios, tools, individual weapons, and protective masks are provided secure storage in permanent buildings.

The Army National Guard does not have adequate space for storage of authorized equipment. They presently have an unfunded backlog of storage facilities estimated at \$30 million. Approximately \$1 million is programmed in the next budget submission. The majority of their equipment is readily available for training and mobilization. Major end items are stored in permanent outdoor storage areas or unheated, covered storage facilities. If required, temporary facilities are used until the permanent facilities are constructed.

With the downsizing of the force and the plus-up of equipment on hand, the Army Reserve is continuing to monitor the need for storage space. Although all current projects for new or expanded Army Reserve centers contain storage areas designed to hold the unit's specific equipment, additional centralized storage areas (e.g., Equipment Concentration Sites (ECS) and warehouses) are being programmed in the construction cycle. No military construction for storage facilities is programmed for fiscal year 1993. However, 9 of the 60 major projects are being considered for fiscal years 1994-95. Storage space is available in the 600 leased Army Reserve Centers, and equipment not required for training but required for mobilization is stored under agreement at repair depots.

In the Naval Reserve, adequate space does not exist for all authorized equipment. The current backlog shows a requirement for storage facility projects. Equipment is generally readily available for training. Equipment storage requirements are not currently causing reduced

readiness ratings, and the majority of equipment is stored indoors in permanent facilities. Equipment storage is causing very isolated and limited problems for the Naval Reserve. Storage facilities which affect readiness are being programmed as soon as possible.

A number of Marine Corps Reserve facilities have inadequate storage space. Most facility requirements have been identified and programmed for military construction projects. As a interim measure, some units use leased commercial space to address critical storage deficiencies and/or have restructured their unit training allowances using space limitations, not readiness, to make their decisions.

The Air National Guard does not have adequate space for the storage and maintenance requirements of the equipment scheduled for delivery within the next few years. Facility needs have been identified, but projects cannot be included in the program due to insufficient funding. Major categories for facility requirements are as follows:

- Aircraft Maintenance and Shops - \$172 million
- Petroleum, oil, and lubricants (POL) Storage - \$345 million
- Vehicle Maintenance and Warehousing - \$82 million
- Munitions Storage - \$74 million

The Air Force Reserve has sufficient space to store equipment programmed for delivery during the current program years. Most equipment is provided as support for training and mobilization associated with major end-items. Some of the equipment is used during routine training weekends, whereas other items are stored for mobilization/deployment purposes. Major end-items are generally stored outdoors, unless specific criteria require indoor storage.

Equipment storage is not a problem for the Coast Guard Reserve, since most members use equipment of the gaining Active component command for training and mobilization. The only Coast Guard Reserve equipment storage requirements are for the three deployable port security units. Equipment for those units is currently located in indoor leased space, and is readily available for training and mobilization.



# Environmental Issues **8**



*"As environmental concerns continue to top the American agenda, the National Guard . . . has made environmental compliance a top goal for the nineties and beyond. Throughout this decade, the National Guard will aggressively pursue the goal of a cleaner, safer environment for the future."*

*Lieutenant General John B. Conaway  
Chief, National Guard Bureau  
April 1992*

## **General**

Environmental issues are a major concern of the Department of Defense, and as new laws and regulations are promulgated daily, they will continue to have a growing impact on the Active and Reserve forces. Violations of federal, state or local environmental laws can result in both civil and criminal penalties; and Reserve component personnel are not immune.

Commanders must know the laws, know what action to take, and ensure that subordinates are properly trained and that the requirements are correctly met.

The Board has taken an aggressive approach to environmental concerns, addressing them in cooperation with the Deputy Assistant Secretary of Defense for Environment. The Board is also an active player in the larger environmental world, attending the monthly Environmental Protection Agency's Federal Agency Environmental Roundtable sessions.

The impact of environmental issues on DoD has necessitated a careful review of previous "ways of doing business." This is as true for the private sector, for the public, and for non-government institutions as it is for government.

Environmental compliance is not a new goal for the Federal government, but the effort to achieve it has grown dramatically. Since 1989, funding for cleanup of waste at federal facilities has tripled. The fiscal year 1993 Federal budget proposed \$9.5 billion for that purpose.

The military Services support this effort. They have identified environmental compliance and education as top goals, and they have made significant progress in three major areas: site identification and assessment; individual and organizational environmental training; and elimination of hazards.

Nonetheless, tremendous challenges lay ahead. Among them are: the burgeoning number and scope of environmental regulations; the growing need for people trained to comply with these regulations; and the turnover rate as these trained personnel leave to accept higher-paying positions in the private sector.

A summary of major environmental requirements impacting on the Reserve

components is shown in Table 8-1.

The leading expenses to the Reserve components are the actual costs associated with management of the environmental programs, asbestos removal, and underground storage/POL-related cleanup. As more single-walled underground storage tanks are removed from service in preparation for the 1998 deadline for removal of all tanks from service, the Reserve components must rely more on direct fuel purchases from the private sector, and costs are escalating. Hazardous waste remains a significant problem, though most sites have received initial inspections and are programmed for cleanup as funds become available.

*The Board recommends that the Department of Defense support a policy which requires that when Active component facilities are transferred to the Reserve components, the responsibility for managing environmental cleanup and restoration for past environmental contamination remains with the Active component.*

## **Environmental Priority And Management**

The Army National Guard's primary environmental issue is hazardous waste management and disposal. To address this concern, they request that personnel who handle materials, and their supervisors, receive appropriate training; hazardous materials and hazardous waste minimization programs must be expanded and resourced; technical assistance and monitoring must be made available; modification to policy and procurement procedures must be initiated to reduce hazardous materials and waste generation; and environmental staffing levels of Military Services and activities must be adjusted to be more responsive to the increasing workloads generated by enactment of more comprehensive laws almost on a monthly basis.

Major environmental requirements include compliance with over 1,900 federal and state environmental laws in 18 major program areas. These programs are monitored through the Pollution Control and Abatement Report; the Army's Planning, Programming, Budgeting Execution Review System (PPBERS); and the

**Table 8-1**  
**RESERVE COMPONENTS ENVIRONMENTAL CLEANUP REQUIREMENTS**  
(Dollars in millions)

	<u>Number of Sites</u>	<u>Estimated Cost</u>	<u>Dollars Funded<sup>3</sup> (FY92)</u>	<u>Dollars Planned<sup>3</sup> (FY93)</u>	<u>Most Costly Remediation</u>	<u>Next Most Costly Remediation</u>
Army National Guard	1	\$ 200 <sup>1</sup>	\$ 2.0	\$ 21.6	Hazardous Waste	Underground Storage Tanks
Army Reserve	1	<sup>1</sup>	22.0	41.0	Hazardous Waste	Underground Storage Tank
Naval Reserve	118	38.0	4.5	3.5	Asbestos Removal	Underground Storage Tank
Marine Corps Reserve	18	7.7	.7	.8	Asbestos Removal	Underground Storage Tank
Air National Guard	707	505.7	41.9	55.8	Contamination Cleanup	Underground Storage Tank
Air Force Reserve	100	16.0	1.1	2.3	POL Facility Upgrade	Underground Storage Tank
Coast Guard Reserve <sup>2</sup>	N/A	N/A	N/A	N/A		

**Notes:**

1. Still being assessed, final figures not available.
2. Environmental cleanup is a Total Coast Guard responsibility.
3. FY92 Supplemental amounts are included in FY93 Dollars Planned, not FY92 Dollars Funded.

Source: The Reserve components.

Data as of September 30, 1992.

**Army Compliance Tracking System Report.** Additionally, the Army National Guard has begun an extensive review of states through the Environmental Compliance Assessment System (ECAS) which involves an external assessment of all the states' facilities focusing on the environmental program areas and their management. Currently, twenty-three states have undergone their initial assessment with a target of completion of the initial assessments in all states by the end of fiscal year 1994. Environmental regulators in three states have initiated legal action and proposed fines against the Adjutants General of their respective states. These actions have been mitigated to consent decrees and federal compliance agreements, with the proposed fines held in abeyance until the required actions are completed, at which time they will be withdrawn.

The Army Reserve's top environmental issue

is the storage and disposition of hazardous materials and wastes. The Army Reserve has been part of a Department of the Army DS2 Working Group involved in the development and implementation of a DS2 consolidated storage action plan. The complete plan provides that no non-contingency force Army Reserve unit will routinely store DS2.

The Army Reserve has selected three major environmental requirements for emphasis. These include identification of projects, adequate staffing, and adequate funding for new requirements. To accomplish these, they foster increased involvement at the Army Reserve Command (ARCOM) staff level and more interface with Active component support installations. Further, the Army Reserve has established a section in the office of their Deputy Chief of Staff for Engineering specifically devoted to environmental issues.



They also closely monitor funding by reviewing monthly budget execution reports, identifying shortfalls, and funding high priority (Class 1) projects through local reprogramming actions.

Due to ever-increasing regulations and enforcement, both inside and outside DoD, regarding environmental issues, staffing has not been able to keep pace with the workload. In the past two years, the Defense Logistics Agency (DLA) has significantly changed its procedures regarding funding and acceptance of hazardous waste. State and local environmental agencies have also greatly increased their enforcement of hazardous waste disposal procedures.

Based on a fiscal year 1994 budget decision, the Naval Reserve expects to receive a large increase in environmental staffing in fiscal year 1994, which should allow it to keep pace with the workload. Naval Air Station, Willow Grove, has just initiated a program where hazardous materials are centrally managed and have to be personally accounted for by the individual user from the time of issue until the material has been completely used or returned. This program already has been very successful in minimizing the amount of hazardous materials being requested for use. Additionally, activities are now required to perform a self-audit on a yearly basis as well as submit a report showing the amount of hazardous waste generated for the year and the method by which it was disposed.

Currently, over 80 percent of the Naval Reserve activities, including all the major

activities, have had environmental compliance evaluations or asbestos surveys performed to determine the cost of bringing activities up to current environmental standards. The Naval Reserve plans to complete environmental surveys on all of its remaining facilities within the next three years, then it will have a clear picture of the amount and cost of all its environmental compliance requirements. The Navy's Environmental and Natural Resources Program Manual requires the activity to officially notify the chain of command, as well as the Navy Energy and Environmental Support Activity, when it receives a Notice of Violation or Notice of Noncompliance.

The Marine Reserve Force continues to stress educating all levels down to the individual Marine concerning environment-related issues. A Hazardous Materials Standing Operating Procedures Guide has been developed by Marine Reserve Force which outlines compliance measures and sources of assistance. This has been augmented with various training programs outlined later in this chapter. Additionally, a Commander's Hazardous Materials Handbook has been prepared to assist Commanders in hazardous materials compliance. Nevertheless, education, training, and enforcement are time intensive and require Full-Time Support to properly accomplish. However, since no specifically designated billets are provided on any Table of Organization, accomplishment of these areas is at the expense of other requirements. Major environmental requirements encompass compliance with Federal, State, and local regulations. These include underground storage tank, Clean Air Act, hazardous material and hazardous waste storage and handling, and hazardous waste disposal compliance, to name a few. Satisfactory accomplishment is achieved and monitored by assigning one individual at each Marine Reserve Force site as the Hazardous Materials Chief. This Marine is responsible for researching local laws, training Marines in environmental compliance and enforcing command compliance. Each program is subject to inspection by Marine Reserve Force Headquarters for regulatory compliance.

Of concern, also, are potential criminal and civil liabilities. Currently, one Marine battalion in California has been identified as a Potentially Responsible Party (PRP) to a Superfund cleanup in Malaga, California. Identified costs stand at

\$4.8 million, with additional costs anticipated. As one of many PRPs, the battalions' proportionate share of cleanup costs has been set at 39 percent. Western Division, Naval Facilities Engineering Command is negotiating final settlement of the suit on behalf of the Marine Corps. The potential results provide insight into areas of future impacts to both the Active and Reserve components.

The Air National Guard's number one environment related concern is compliance with the Resource Conservation and Recovery Act (RCRA) regulations. RCRA compliance includes compliance with hazardous waste and underground storage tank regulations. Approximately 60 percent of the violations cited at Air National Guard bases in fiscal year 1992 by regulatory agencies were RCRA violations, and over half those were for hazardous waste. (A breakdown of the number of administrative violations as opposed to physical violations was not available). During Environmental Compliance Assessment and Management Program audits performed by the Air National Guard, it has become obvious that most hazardous waste violations occur because not everyone involved in handling hazardous waste understands the regulations. Increased understanding must be a priority effort.

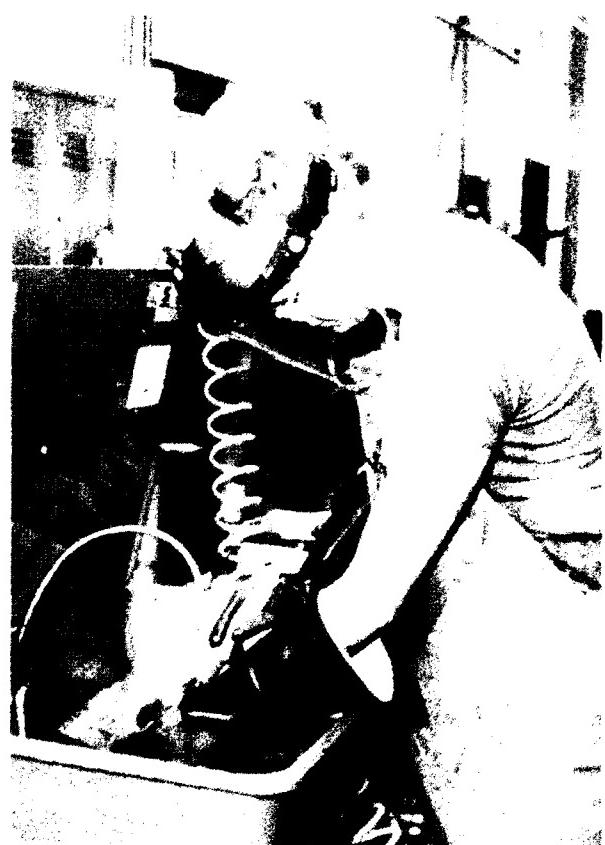
The Air National Guard is programming removal and replacement of all underground storage tanks by 1998, and has programmed Hazardous Waste training courses for environmental coordinators for fiscal year 1993. Additionally, each Air National Guard base will receive a packaged training program stressing increased understanding of environmental regulations. The environmental arena permeates all aspects of Air National Guard activity in accordance with the many applicable, and widely diverse, laws, statutes, and regulations. Environmental statutes include Clean Water Act, National Environmental Policy Act, Endangered Species Act, Historic Preservation Act, Comprehensive Environmental Response Compensation and Liability Act, Federal Insecticide, Fungicide and Rodenticide Act, and Resource Conservation Recovery Act. These are monitored for compliance by several program managers who help provide the resources necessary to conduct environmental work, site visits, coordination and cooperation with other agencies, policy and direction to the field, and establishment of training programs.

Fifty-two environmental coordinators have been hired at base level since fiscal year 1991, with another 40 positions waiting for qualified



applicants. The search for, and retention of, qualified individuals is increasingly difficult since industry and other agencies are also competing for them. One of the best monitoring programs for the Air National Guard is the Environmental Compliance and Management Program (ECAMP) audit. An ECAMP audit is conducted on every installation in a three-year cycle to verify their compliance with all the relevant statutes. In fiscal year 1992, 28 audits were completed with 32 planned for fiscal year 1993. The program follows through with a plan for action on those items found deficient.

The primary concern of the Air Force Reserve is the lack of qualified environmental engineers, or equivalent personnel, to work environmental compliance and restoration issues. The Air Force Reserve solution is to evaluate all existing installation environmental shops and identify personnel needs. The Air Force Reserve recommends obtaining intern positions so that personnel may be trained prior to filling new positions. They anticipate the installation survey to be completed by March 1993. Restoration of past hazardous waste sites is tracked through IRP/DERA program submittals and periodic updates.



In determining status of compliance with current federal and state requirements, the absence of notices of violation is considered the measure of merit. That program is assessed through internal and external ECAMP audits. Preventing future pollution is tracked through various reports of spills, releases, and hazardous waste generation. Compliance with Environmental Impact Analysis Process (EIAP) requirements is accomplished through command review of EIAP documents, and monitoring of all natural resource protection requirements is verified through command review of installation program documents and through the ECAMP process. Overall monitoring is accomplished through the base and MAJCOM level environmental protection committees and subcommittees. The Air Force Reserve has also developed a special interest item checklist for the Air Force Reserve Inspector General inspections.

The Coast Guard's first priority is to establish the present environmental state of the service. As the problems are identified and prioritized, it is developing a comprehensive plan of attack is developed to remedy all contaminated sites and bring facilities into continuous compliance with environmental laws and regulations. Coast Guard commanding officers and officers-in-charge are responsible for ensuring that their units are in continuous compliance with all applicable federal, state, and local environmental laws and regulations. They are supported in this responsibility by the Maintenance and Logistics Commands (MLCs), particularly the MLC Shore Divisions and the Civil Engineering Units. The Coast Guard Reserve does not maintain data concerning environmental cleanup; that is a Total Coast Guard responsibility.

## Environmental Training

The requirements placed on the various Reserve component and other Department of Defense environmental training programs are increasing. The major factors are an increased number of positions requiring specially trained individuals, a high turnover rate as qualified people leave for higher paying environmental positions outside the Department of Defense, and the ever increasing complexity and scope of environmental regulations. Some of the highlights of the environmental training programs of each of the Reserve components

**Table 8-2**  
**HAZARDOUS MATERIALS TRAINING REQUIREMENTS**

	RCRA Large Quantity Generators	RCRA Small Quantity Generators	DOT	OSHA Hazard Communication Standard	OSHA Hazardous Waste Operations & Emergency Response <sup>1</sup>	Spill Prevention, Containment, & Countermeasures (SPCC)
<b>Applicability</b>	Facilities that generate more than 1,000 kg/month of hazardous waste	Facilities that generate 100-1,000 kg/month of hazardous waste	Facilities involved in the transportation, shipment, or preparation for shipment of hazardous materials	Facilities that handle hazardous chemicals	Facilities that may be involved in an emergency response operation involving the release of a hazardous substance	Facilities required to prepare a SPCC Plan
<b>Who Must Be Trained</b>	Employees who handle hazardous waste	Employees who handle hazardous waste	Employees involved in the transportation or shipment of hazardous materials/wastes	Employees who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies	Employees who participate, or may be expected to participate, in emergency response; training based on level of involvement	Employees involved in the operation and maintenance of equipment that may discharge oil
<b>When Training Must Occur</b>	Within 6 months after employment or new job assignment; must be supervised until trained; annual refresher for all employees	Not specified	Within 90 days after employment or new job assignment 49 CFR 172-704(c)	At time of initial assignment; whenever a new hazard is introduced to the work area	Initial training prior to taking part in emergency response; annual refresher	Spill prevention briefings must be conducted "at intervals frequent enough to assure adequate understanding of the SPCC Plan"
<b>Record-keeping</b>	Written job title and job description; written description of training required for each position; documentation that training has been provided	Not required	Written description of employee information including certification 49 CFR 172-704(d)	Written description of employee information and training must be included in hazard communication program	Must certify training or competency, including method used to demonstrate competency	Not required
<b>Regulatory Citation</b>	40 CFR 262.34(a)(4); 40 CFR 265.16	40 CFR 262.34(d)(5)(iii)	49 CFR 173.1(b); 49 CFR 177.800(a); 49 CFR 177.816; 49 CFR 172-700-704	29 CFR 1910.120(b)(h)	29 CFR 1910.120(q)(5)(6); 29 CFR 1910.120(p)(7); 29 CFR 1910.120(p)(8)(iii)	40 CFR 112.7(e)(10)

**Note:**

1. Facilities that do not fall under the requirement of 29 CFR 1910.120 must comply with 29 CFR 1910.38(a)-Emergency Action Plan.

Source: *Hazardous Technical Information Services Bulletin*, Vol. 3, No. 3, Fall 1992,  
Defense General Supply Center, Richmond, Virginia.

are found in the following paragraphs. Table 8-2, provided by the Hazardous Technical Information Services of the Defense General Supply Center, highlights the major hazardous materials and hazardous waste training requirements.

Environmental training requirements for the Army National Guard greatly exceeds Department of Defense and Army assets. All environmental training is coordinated by the National Guard Environmental Resources Management Office which supports 300 professionals in the Army National Guard. The turn over rate exceeds 25 percent, which necessitates a continuing annual training requirement. Many of the states have developed their own training program under the general guidance of the National Guard Bureau and offer specialty courses through commercial and other government sources. National Guard Bureau sponsors training in hazardous waste (HW) and material handling, HW Management, environmental reporting, National Environmental Policy Act (NEPA), Basic Environmental Coordinators, Environmental Communications, and Senior Environmental Leadership, as well as coordinating courses offered through other organizations and agencies.

Currently, the United States Army Toxic and Hazardous Materials Agency (USATHAMA) is responsible for developing the Army Environmental Master Plan for training, which is scheduled for completion in fiscal year 1993. In order to more effectively communicate with the general public and media about complex, often emotional environmental issues, the Environmental Communications training was developed. These courses are designed for Guard environmental specialists and program managers throughout the 54 states and territories.

Army Reserve soldiers and civilians attend environmental training coordinated by the major Army command. They attend courses primarily offered by the Army Logistics Management College and the Corps of Engineers. In addition, Engineer and Facility managers attend a Life Cycle Management for Army Reserve Facilities course. All Reserve component training institutions conducting engineer proponent exportable training courses must include instruction contained in the Risk

#### Management and Environmental Policies/Procedures Handbook.

Commanding officers and public works officers in the Naval Reserve may attend an environmental orientation course hosted by the Civil Engineer Corps Officer School (CECOS) which is tailored to meet the specific needs of the individual and to focus on individual problem areas. Additionally, CECOS and the Navy Energy and Environment Support Activity offer numerous environmental training courses that all Naval Air Reserve air installation environmental coordinators attend. During fiscal year 1992, the Naval Reserve initiated a program to draw on the civilian environmental training and experience of its Selected Reservists.

The Marine Reserve Force has developed a training program which includes three levels of training. Level I, consisting of an orientation and Department of Defense 6050.5W Federal Hazard Communication Training Program, is the most basic and targets every member of the command who deals routinely with Hazardous Waste/Hazardous Materials. Level II, consisting of Level I training plus the Naval Energy and Environmental Support Activity course, focuses on educating Officers and Staff in sections and departments who are the major users or producers of Hazardous Waste. Level III, consisting of the Naval Safety School Course S-354, Naval Transportation and Management Schools Course, Environmental Protection Agency Course 165.15, and an annual command-sponsored refresher course, is the most comprehensive and is restricted to Site Hazardous Material Coordinators. These courses vary in length from several days to several weeks. A Hazardous Materials Specialist Military Occupation Specialty (MOS) has been approved.

The Air National Guard conducts nine different environmental training courses which are offered to environmental specialists and managers, including Adjutants General, field commanders, and National Guard Bureau division chiefs. The Environmental Communications Training course for environmental project managers has been especially successful. Cross training with other agencies has been implemented, and additional programs are being developed. The goal for fiscal year 1993 is to offer nine more specialized

training courses and to have 100 percent of Air National Guard personnel undergo training by the end of fiscal year 1993.

The Air Force Reserve initiated an annual environmental conference for Air Force Reserve installation commanders, base civil engineers, base environmental coordinators, and base bioenvironmental engineers. The conference is one week and covers the latest guidance of all environmental programs. They also began an environmental leadership course for all Air Force Reserve wing and group commanders which provides an overview of environmental issues, legislation and policies affecting Air Force installations to assist commanders in addressing important environmental concerns. Additional environmental training is accomplished through Air Force Installation Training and environmental training seminars for civilian grades GS-09 through GS-15. All Major Command and base-level environmental personnel attend these courses. Hazardous waste management, hazard communication, hazardous material spill response, and pollution prevention program training are all provided at base level to appropriate personnel.

No formal training in the handling or disposal of Hazardous Material (HAZMAT) exists within the Coast Guard Reserve. However, Reservists can attend Active component schools for training in the handling and disposal of HAZMAT. The majority of Reservists augment Active Duty commands, which are responsible for HAZMAT issues. Each Active Duty command is required to operate an OJT program in the proper handling of HAZMAT for all assigned personnel. Environmental training which is mandated by law (e.g. hazardous waste management training required by RCRA) is handled by the Active component's Maintenance and Logistics Commands.

### Hazardous Waste Minimization And Recycling

The Reserve components are also actively pursuing programs to minimize hazardous waste material generation. For example, in February 1991, the Air Force Reserve completed a Hazardous Waste Minimization Study for all continental U. S. Air Force Reserve bases. This study identified several hazardous material substitutions which could reduce the



quantity of waste generated as well as lessen health risks for operators.

Recyclable materials and procedures are being used to minimize bulk sent to landfills, reduce manufacturing costs, and save raw materials.

The Army National Guard funded hazardous waste minimization programs in several states as test programs to find ways of reducing the volume of hazardous waste. Major success occurred with filtration of fuels which has been contaminated because of water and dirt. This allowed these "waste fuels" to be consumed in their intended purpose and has resulted in zero generation of waste fuel. Bead blasting as a means of stripping paint from aircraft has resulted in a reduction of 75 percent of hazardous waste generated from aircraft painting. At one Army National Guard aviation facility, the hazardous waste disposal cost went from \$700,000 in fiscal year 1991 to \$70,000 in fiscal year 1992. High pressure parts washers, filter parts washers, and distillation parts washers are being tested at several locations with as much as 80 percent reduction in hazardous waste generation and no adverse effect on operational readiness. However, because of the nature of the Army National Guard, many facilities remain Small Quantity Generators (SQG). The SQG problem needs to be given more consideration in the disposal of Federal property. Industry now has systems, procedures, and equipment in use that could be used by the Armed Forces to reduce hazardous waste. Once these systems, procedures and equipment are officially approved by the Army, their acquisition and use by the Army National Guard will be greatly enhanced.

The Army Reserve relies on the Active component support installation and major command for identification of alternatives and substitution for hazardous materials within the supply system. Contracts for solvents used in their Area Maintenance Support Activities (AMSA's) specify the least hazardous materials that will effectively clean machinery parts. Waste minimization practices are adhered to throughout the Army Reserve, and units and personnel compete in the Secretary of the Army's Hazardous Waste Minimization Awards Program.

The Naval Reserve continues to use the best

available technology to comply with the Navy's Environmental and Natural Resources Program Manual and is currently on target in meeting the 50 percent hazardous material reduction goal by 1993. The Hazardous Material Control and Management Committee has drafted a Hazardous Material/Waste and Hazardous Minimization instruction for issue to the Force. The Naval Reserve uses the programs initiated by the Naval Energy and Environmental Support Activity and other echelon II commands that have already developed expertise in this area. These include recycling solvents and controlling the procurement and stocking of hazardous materials.

For the Marine Reserve Force, education has been instrumental in hazardous waste minimization. Through improved management techniques, tighter control measures, and modification of maintenance procedures, Marine Reserve Force has successfully reduced the amount of hazardous waste generated by an estimated 30 percent since 1990. Identification of alternative hazardous materials for use continues to be an effective technique in minimization. This is more difficult in the aviation community because all materials used in or on aircraft must meet more stringent certification requirements. In these cases, equivalent substitutes may not be used unless specifically authorized.

During fiscal year 1992, the Air National Guard developed an aggressive pollution prevention strategy. This strategy included centrally managed pollution prevention contract support in the amount of \$2.5 million and pollution prevention equipment purchases estimated at about \$.4 million. Contract support involves conducting Opportunity Assessment (OA) site investigations and follow-on Pollution Prevention Plans (PPP's), with associated emissions inventories and reduction progress tracking systems, for 100 principal ANG installations. OA site investigations utilize an Environmental Protection Agency (EPA) based mass balance assessment system to identify hazardous waste producing processes and waste reduction opportunities. The same mass balance concept is used in defining PPP implementation responsibilities and in the tracking of reduction efforts by waste stream. Installation personnel will be trained on how to implement pollutant reduction planning recommendations and tracking functions. The

Air National Guard will purchase pollution prevention equipment to facilitate solvent recovery, solvent use elimination, antifreeze recovery, volatile organic carbon reductions, and hazardous waste stream reduction.

The Air Force Reserve has recently begun tracking hazardous waste generation and minimization at their installations. Detailed waste generation tracking has allowed them to focus minimization efforts on high priority waste generators such as waste fuels and waste oils. The Air Force Reserve maintains open communications with systems managers at other major commands and with pollution prevention officer personnel to identify all approved alternatives to existing hazardous materials.

The Coast Guard has implemented its Life Cycle Hazardous Materials/Waste Minimization Program. In fiscal year 1992, it established a hazardous materials/waste baseline and began identifying waste streams and studying the related processes which contributed to the waste, as the initial step in the overall program.

## Department Of Defense Environmental Role, Goals, And Initiatives

The Department of Defense environmental strategy looks at the five major environmental areas of environmental restoration, compliance, education/training, pollution prevention, and conservation of natural and cultural resources. In these areas, the Department of Defense has taken an aggressive and responsible stance. Its environmental mission is "to support the national defense mission through environmental stewardship by clean-up/restoration, full and sustained compliance, pollution prevention, conservation and enhancement in accordance with environmental statutes in a fiscally responsible manner using innovative technologies."

To accomplish this mission, the Department continues to receive support from an environmentally conscious Congress. Funding support has significantly increased in the last few years, as shown in Table 8-3.

**Table 8-3  
DOD ENVIRONMENTAL PROGRAMS  
(\$ in Millions)**

	FY87 <u>Actual</u>	FY88 <u>Actual</u>	FY89 <u>Actual</u>	FY90 <u>Actual</u>	FY91 <u>Actual</u>	FY92 <u>Actual</u>
Restoration	376.0	404.0	502.0	601.0	1,065.0	1,567.8
Compliance & Protection	500.0	550.0	655.0	785.0	1,118.9	1,866.1
BRAC I	0.0	0.0	0.0	0.0	251.2	256.6
BRAC II	0.0	0.0	0.0	0.0	0.0	244.5
Legacy	0.0	0.0	0.0	0.0	10.0	25.0
SERDP	0.0	0.0	0.0	0.0	77.0	69.8
<b>Total</b>	<b>876.0</b>	<b>954.0</b>	<b>1,157.0</b>	<b>1,386.0</b>	<b>2,522.1</b>	<b>4,029.8</b>

Source: Office of the Deputy Assistant Secretary of Defense for Environment.  
Data as of November 16, 1992.

The Department of Defense has an environmental vision that will make protection of the environment an integral part of its overall mission. That vision states: "Protection of the environment is a vital part of DoD's national security mission, and that mission will be accomplished in an environmentally-responsible manner using innovation, research, and sound business practices in open partnership with others. As a federal leader, the Department will fully identify its requirements and seek Congressional approval for the resources necessary to fulfill its environmental responsibility." To this end, environmental initiatives abound within the Department of Defense. Many of these may prove to alleviate some of the concerns of the Reserve components discussed in this chapter.

*The Board supports and encourages these initiatives, and notes that:*

- *the Department of Defense, and the individual Services, are making concerted efforts to find suitable alternatives to the hazardous materials specified in many military and Federal standards and specifications.*
- *the Department of Defense is incorporating environmental training for weapon systems program managers.*
- *the Department of Defense is developing an integrated (strategic) environmental education and training plan to improve education and training programs for military and civilian personnel.*
- *the Deputy Assistant Secretary of Defense for Environment is studying ways to create more attractive environmental career field options.*
- *the Department of Defense is considering including environmental responsibilities in all appropriate civilian and military job descriptions.*

## **Environmental Summary And Recommendations**

*The Board commends the efforts of the Department of Defense to assist the Reserve components to comply with environmental*

*requirements. However, the Board is concerned about adequate funding for the problems already identified and about protection from personal liability (civil and criminal) for Reserve component commanders and members. If additional legislation, which may be unique to the Reserve components, is necessary to protect these commanders and other members who are operating reasonably and responsibly, the Board will support it.*

*The Board recommends that the Department of Defense increase its efforts and assume the lead in a five tier national effort toward resolving environmental issues. Those five tiers are environmental restoration, compliance, education/training, pollution prevention and conservation. DoD is encouraged to:*

- *investigate Reserve component sites and organizations for environmental shortfalls, establish corrective measures, and begin remediation as soon as possible.*
- *continue research into training, materiel, and procedure alternatives which will avoid future environmental problems. Foster supplier contracts which offer alternative chemicals, metals, and fuel sources which provide environmentally sound substitutes.*
- *provide environmental training for all personnel, to include executive, manager, supervisor, and individual level, and to include Reserve component personnel in those training opportunities.*
- *assist each of the Active and Reserve components to establish an office specifically devoted to environmental issues, compliance, and training.*
- *increase the exchange of information on the numerous environmental training opportunities available among the Services, and reevaluate attendance criteria, opening up such training to others in the DoD community and allowing up to 20 percent of each class to be filled by managers, supervisors, and executives from the civilian sector on a non-reimbursable basis.* 



## Abbreviations and Acronyms

### A

AAV	assault amphibious vehicle
AC	Active component
ACC	Air Combat Command
ACES	armored combat earthmover system
ADT	active duty training
AFR	Air Force Regulation
AFRES	Air Force Reserve
AFSC	Air Force Specialty Code
AGR	Active Guard and Reserve
AIMS	Authoring Instructional Media System
AIS	automated information system
AMC	<i>Air Mobility Command; Army Materiel Command</i>
AMEDD	Army Medical Department
AMSA	area maintenance support activity
ANG	Air National Guard
ANGLICO	Air/Naval Gunfire Liaison Company
ARCOM	Army Reserve Command
ARCSOF	Active and Reserve component special operations forces
ARNG	Army National Guard
ART	Air Reserve Technicians
AS	Airlift Squadron
ASR	authorized supply rates
ASW	anti-submarine warfare
AT	annual training
ATC	air transportable clinic
ATFP	additional flight training period
ATP	additional training period
AVCRAD	aviation classification and repair, Army depot

### B

BAI	backup aircraft inventory
BAQ	basic allowance for quarters
BAT	best available technology
Bde	brigade
Bn	battalion
BPC	battle projection center(s)
BRAC	Base Realignment and Closure Commission
BUPERS	Bureau of Naval Personnel

### C

CAT	Civilian-Acquired Training
CATS	Combined Arms Training Strategy
CAX	combined arms exercise
CBR	concept based requirements [appended letter refers to procedure]
CC	cost center
CCTT	close combat tactical trainer
CE	continuing education
CEB	combat engineer battalion
CECOS	Civil Engineer Corps Officer School
CEIS	Controlled Equipage Inventory System
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFP	contingency force pool
CHAMPUS	civilian health and medical program of the uniformed services
CINC	Commander-in-Chief
CINCLANTFLT	Commander-in-Chief, Atlantic Fleet
CINCNORAD	Commander-in-Chief, NORAD
CINCPACFLT	Commander-in-Chief, Pacific Fleet
CIOR	Interallied Confederation of Reserve Officers
CNO	Chief of Naval Operations
CONUS	continental United States
CONUSA	CONUS Army
CPO	Chief Petty Officer
CPOA	Chief Petty Officer Academy
CPR	cardio-pulmonary resuscitation
CPX	command post exercise
CS	civil service; combat support; communications squadron (USAF)
CSM	command sergeant major
CUCV	commercial utility cargo vehicle
CWO	chief warrant officer
D	
DAMPL	Department of the Army Master Priority List
DARPA	Defense Advanced Research Projects Agency

DEERS	Defense Eligibility Enrollment System
DENCAP	dental capability
DEPMEDS	deployable medical system
DERP	Defense Environmental Restoration Program
DFAS	Defense Finance and Accounting Service
DLA	Defense Logistics Agency
DMOSQ	duty-MOS qualified
DoD	Department of Defense
DoL	Department of Labor
DOPMA	Defense Officer Personnel Management Act
DPP	Dedicated Procurement Program

## E

ECAMP	Environmental Compliance and Management Program (ANG)
ECAS	Environmental Compliance Assessment System (ARNG)
ECM	electronic countermeasure(s)
ECS	equipment concentration sites
EIAP	Environmental Impact Analysis Process
ELT	enforcement of laws and treaties
ENRETE	engineer readiness training exercise
EPA	Environmental Protection Agency
ESGR	Employer Support of the Guard and Reserve

## F

FA	fund administrator
FASTDATA	Fund Administration and Standardization Document Automation
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FF	Fast Frigate
FFCA	Federal Facilities Compliance Act
FFFFE	First to Fight, First to be Equipped
FFT	Fast Frigate Trainer
FLTCINC	Fleet CINC
FORSCOM	Forces Command
FTS	Full-Time Support
FTX	field training exercise; fleet training exercise
FUDS	formally used defense site

## G

GAO	General Accounting Office
GED	General Equivalency Diploma

## H

HAZMAT	hazardous materials
HAZMIN	hazard minimization
HCA	humanitarian/civic assistance
HCS	helicopter combat special support

HEMTT	heavy expanded-mobility tactical truck
HET	Heavy equipment transporter
HETS	HET System
IMMWV	high mobility multi-purpose wheeled vehicle
HPLRP	Health Professional Loan Repayment Program
HTC	home training center
HW	hazardous waste

## I

I-I	Inspector-Instructor (USMCR)
I/O	Inspect & Overhaul
IADT	initial active duty for training
ID(E)	Infantry Division (Exercise)
IDT	inactive duty training ("drills")
IG	Inspector General
IMA	Individual Mobilization Augmentee
IMAPMIS	Interactive Manpower And Personnel Management Information System
INCONUS	within the continental United States
ING	Inactive National Guard
IR	infra-red
IRR	Individual Ready Reserve
IVD	interactive videodisc

## J

JCS	Joint Chiefs of Staff
JROTC	Junior ROTC
JRTU	joint reserve training unit
JSS	Joint Service Software
JTF	joint task force
JUMPS	Joint Uniform Military Pay System

## L

LINK-UP	Leaders Increasing Knowledge and Understanding Program
LMI	Logistics Management Institute
LOD	line of duty
LOGEX	logistics exercise
LPN	licensed practical nurse

## M

M-Day	"Mobilization" day
MAGTF	Marine Air/Ground Task Force
MAJCOM	major command (USAF)
MARRESFOR	Marine Reserve Forces
MCOFT	mobile conduct of fire trainer
MEB	Marine Expeditionary Brigade
MEDCAP	medical capability
MEDRETE	medical readiness training exercise
MEET	minimal essential equipment for training
MEF	Marine Expeditionary Force (USMC); management engineering flight (USAF)

MEU.....	Marine Expeditionary Unit
MGIB.....	Montgomery G.I. Bill
MILCON.....	military construction
MILES.....	Multiple Integrated Laser Engagement Simulation
MIUW.....	Mobile Inshore Undersea Warfare
MLRS.....	multiple launch rocket system
MOBEX.....	mobilization exercise
MORDT.....	mobilization operational readiness deployment test
MOS.....	military occupational specialty
MSF	mobile subscriber equipment
MSFTX .....	mobilization station field training exercise
MT.....	military technician
MTU.....	mobilization training unit (USMCR)
MUST.....	medical unit, self-contained, transportable
MUTA.....	multiple unit training assembly

## N

NAAD.....	National Army Medical Department Augmentation Detachment
NAF.....	naval air facility
NAS.....	naval air station
NBC.....	nuclear, biological, and chemical
NCB.....	naval construction brigade
NCESCR.....	National Committee for Employer Support of the Guard and Reserve
NCO.....	non-commissioned officer
NEDOC.....	Navy expanded drill opportunity, clinical
NEESA.....	Navy Energy and Environment Support Activity
NEPA.....	National Environmental Policy Act
NGREA.....	National Guard and Reserve Equipment Appropriations
NMCB.....	Naval Mobile Construction Battalion
NON.....	notice of non-compliance
NORAD.....	North American Air Defense Command
NOV.....	notice of violation
NRF.....	Naval Reserve Force
NRPC.....	Naval Reserve Personnel Center
NRUCS .....	Naval Reserve Utility Clothing System

## O

O&M.....	operations & maintenance
O&MNR.....	operations & maintenance, Naval Reserve
OA.....	opportunity assessment
OBC.....	officer basic course (Army)
OCONUS.....	Out of CONUS
ODT.....	overseas deployment training
OJT.....	on-the-job training
OPLAN .....	operation plan
OPM .....	Office of Personnel Management
OPTEMPO .....	operating tempo
ORE.....	operational readiness exercise
OSHA.....	Occupational Health and Safety Administration

## P

PAA.....	primary aircraft authorization
PDAR .....	Professional Development of Army Reserve
PMR.....	primary mission requirements
POL.....	petroleum, oils, lubricants
PPBD .....	planning, programming, budgeting, decision
PPBERS .....	planning, programming, budgeting, and execution review system
PPP.....	pollution prevention plan
PRIMUS.....	Physician Reservists in Medical Universities and Schools
PRP.....	potentially responsible party
PSU.....	port security unit
PUT.....	professional update training

## Q

QRMC.....	Quadrennial Review of Military Compensation
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## R

RC.....	Reserve component
RCAS.....	Reserve Component Automation System (ARNG/USAR)
RCRA .....	Resource Conservation and Recovery Act
RCS.....	Requirement Control Symbol
RCT.....	reserve counterpart training
REFLEX .....	reserve flexibility
RESTAR.....	Reserve Transition and Recognition (USNR)
RMC.....	regular military compensation
ROPA.....	Reserve Officer Personnel Act
ROPMA .....	Reserve Officer Personnel Management Act
ROTC.....	Reserve Officer's Training Course
RQS.....	rescue squadron
RTS-MED .....	regional training site(s)-medical
RTU.....	reinforcement training unit (USAR)
RWR.....	radar warning receiver(s)

## S

SAMRS .....	Standard Army National Guard Maintenance Reporting System
SBP.....	survivor benefit plan
SBSS .....	Standard Base Supply System (USAFR)
SCNS .....	self-contained navigation system
Seabee.....	from "CB", construction battalion (Navy)
SEAL.....	sea, air, and land (USN "Seal" Team)
SELRES .....	selected reserve
SETS.....	squad engagement training set(s)
SGM .....	sergeant major
SIDPERS .....	standard information data base, personnel
SINCGARS .....	single channel ground/airborne radio system

SMCR ..... Selected Marine Corps Reserve  
SNCO ..... staff non-commissioned officer  
SORTS ..... status of resources and training system  
SPCC ..... Spill Prevention, Containment, & Countermeasures  
SRA ..... Selected Reserve Augmentee  
SRIP ..... Selected Reserve Incentive Program  
STAR ..... Specialized Training for Army Readiness  
STRAP ..... Specialized Training and Assistance Program

## T

T/TC ..... Tactical/Technical Certification  
TAPDB ..... Total Army Personnel Data Base  
TAR ..... Training and Administration of Reserves (Navy)  
TDA ..... table of distribution and allowances  
TMDE ..... test, measurement, and diagnostic equipment  
TOA ..... table of allowances  
TOE ..... table of organization and equipment  
TOW ..... Tube launched, Optically tracked, Wire guided [anti-tank] missile

## U

UHF ..... ultra-high frequency  
UIC ..... unit identification code  
ULLS ..... Unit Level Logistics System  
UPT ..... Undergraduate Pilot Training  
USA ..... US Army  
USAF ..... US Air Force

USAFR ..... US Air Force Reserve  
USAR ..... US Army Reserve  
USATHAMA ..... US Army Toxic and Hazardous Materials Agency  
U.S.C. ..... United States Code  
USCG ..... US Coast Guard  
USCGR ..... US Coast Guard Reserve  
USCS ..... United States Customs Service  
USERRA ..... Uniformed Services Employment and Reemployment Rights Act  
USFAO ..... US Finance and Accounting Office  
USMC ..... US Marine Corps  
USMCR ..... US Marine Corps Reserve  
USN ..... US Navy  
USNR ..... US Naval Reserve  
USR ..... Unit Status Reporting  
USSOCOM ..... US Special Operations Command  
UTA ..... unit training assembly  
UTC ..... unit training code

## V

VHA ..... variable housing allowance  
VHF ..... very-high frequency  
VOC ..... volatile organic carbon  
VRR ..... veteran's reemployment rights  
VTU ..... voluntary training unit (USNR)

## W

WMF ..... weather meteorological flight (USAF)  
WO ..... warrant officer  
WOLDAP ..... Warrant Officer Leader Development Plan  
WOMA ..... Warrant Officer Management Act



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